

TONKIN TO INDIA



PRINCE HENRI D'ORLÉANS



Daniel Foley

FROM TONKIN TO INDIA

BY THE SOURCES OF THE IRAWADI

JANUARY '95-JANUARY '96



Prince Henri and his Companions, MM. Roux and Briffaud.

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BY

PRINCE HENRI D'ORLÉANS

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BY

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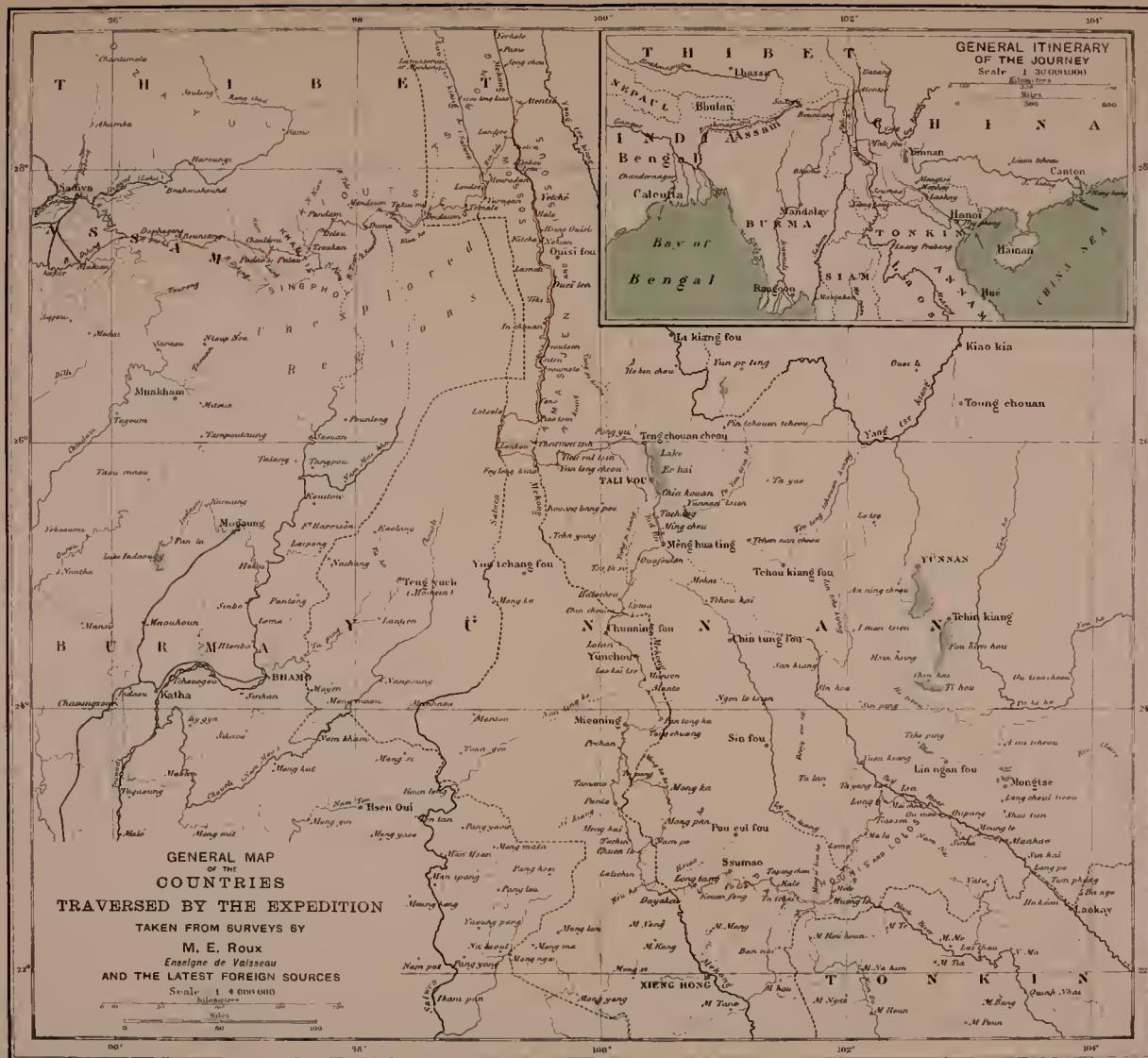
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Prince Henry of Orleans Boute shown this —



On the Banks of the Red River.

CHAPTER I

HANOÏ TO MONGTSE

My Companions—Plan of Travel—Death of M. de Grandmaison—M. Briffaud—At Hanoï—Final Preparations—Our Men—Ascent of the Red River by Steamer—Yen-Tay—Laokay—By Junk to Manhao—First Difficulties with the Chinese—On to Mongtse—Stay at the Consulate—Situation of the Missionaries—We organise the Caravan—A Walk in the Town—The Market—General Ma—Customs Officials—Life of the Europeans at Mongtse—Climate—The Plague—Food Resources.

ON the 13th of September 1894 M. de Grandmaison and I, having just returned from travelling in Madagascar, picked up M. Roux at Aden, where he had arrived direct from France.

Although his duties as a naval lieutenant had hitherto prevented our personal acquaintance, a correspondence of several

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years had given me an insight into the character and sterling worth of my future comrade, and we were in complete accord both as to the end to be achieved and the means for its attainment. As soon as I expressed my intention of starting on this fresh voyage of discovery, Roux at once decided to apply for leave of absence to accompany me. This was granted by the Minister of Marine for one year, and when we now met for the first time it was as old friends.

Thus it came about that we three found ourselves, full of youth and high spirits, fired with the same enterprise and zeal for our country, chatting over our maps on board the *Saghalien*, eastward bound.

My original idea had been to complete my knowledge of French Indo-China, and especially the mountainous districts of Annam. But these were now almost familiar. The network of such recent journeys as those of the Pavie Mission, of MM. Bonnin, Grill, and Odenthal, and the prospective one of Lieutenant Debay, left but small tracts on the map to be traversed. We turned our eyes farther north, where lay the hitherto unknown course of the Mekong in China. We felt that the work initiated by Lagrée and Francis Garnier ought to be continued by Frenchmen. Moreover, our explorations in China outside our own possessions would enable us to gather information that should be of profit to the peaceful commercial expansion of our colonies. Once up there, it would be idle to retrace our steps. When we should have ascended the valley of the Mekong as far as the point where the French missionaries had established themselves on the Thibetan-Chinese frontier, we should only have to turn to the left and reach India. Map travel is ever easy. The idea of a return through absolutely new countries took my

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companions' fancy; the proposal was carried unanimously, and our plan was made.

After a month or so in Cochin China and Cambodia, in the provinces of Battambang and Angkor, and in Annam, we were to make Tonkin our base of departure. Skirting the northern or Chinese boundary of Tonkin and the Laotian States, we would endeavour to strike the Mekong at the point where it enters Indo-China—that is to say, not far from where Garnier quitted it. Thence we should follow the valley of the river, keeping as near as possible to its stream in order to determine its undefined course in China. Our highest goal was to be Tsekou on the frontier of Thibet. Above Tsekou the Mekong is known through the labours of missionaries. We should halt at Tali Fou, the chief western mart of Yünnan. And for our homeward route we would make the attempt to march due west.

Such were the general outlines of our journey. For an undertaking of this magnitude all available subsidiary chances should be assured. One important factor was uncertain,—time. Roux had only a year's leave; and as this would not suffice, it was imperative that he should be "seconded" for colonial service of indefinite duration. Given this, and resolution, there seemed to be good hope of ultimate success.

But on our subsequent arrival at the rendezvous at Tonkin, in the end of December, sad news awaited us. M. de Grand-maison, who had gone for a week to Hong-Kong whilst we were visiting Hué, was fated never to rejoin us. He had succumbed to a sudden illness. Death, in thus cutting off our comrade, had taken heavy toll of us at the outset. I cannot refrain from rendering brief homage here to the memory of his

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intrepid spirit, who, in the flower of youth, with name and fortune, was willing to throw in his lot with mine, in the hope that he might perhaps some day return to do good work for our colonies.

The void caused by this event only served to bind us who survived more closely to each other and to our task. Roux having at this time received the sanction for his colonial transfer, we two resolved to carry out the original project of the three, and set about our preparations in earnest.

Whilst he proceeded to Hong-Kong to perform the sad duty of embarking the body of M. de Grandmaison, and to consult with M. Desgodins, the well-known missionary of Thibet, besides making various purchases, I remained at Hanoï adjusting baggage and engaging followers.

During these preliminaries a providential accession was made to our little band in the person of M. Briffaud, one of the older inhabitants of the colony, who had passed eleven years in Tonkin. He was on the point of returning to France, but being a pioneer at heart was attracted by our enterprise, and asked to be allowed to join us as a volunteer. I recalled the instance of Father Dédékens, who, six years before, on his way home to Belgium, elected to make a détour in our company. And a détour it proved, for it lasted a year, and traversed Central Asia and Thibet. But, like Father Dédékens, Briffaud also was gifted with the sacred fire; he was inured to the hardships of travel, and possessed experience, health, and a cheerful disposition. These were more than enough to ensure him a hearty reception as one of ourselves.

On the morning of 26th January 1895 we set out from Hanoï on board the *Yünnan*. Besides our three selves, our party

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consisted of four. The first was a little Annamite, who had been with me before. On the present occasion he did not go far with us; nor did I subsequently regret him: he would never have stood the sort of work we had to encounter. At Yen-Tay he left us sick. The second, Sao, had also previously accompanied me to Bangkok. He was large and angular, of independent temper, and a bit of a grumbler, but withal a safe shot, a sure hunter, and proved himself afterwards eminently practical in an emergency. Sao spoke little, and testified his approbation or derision by a silent smile, which displayed two rows of beautiful black teeth. "Much stupid" was his contemptuous expression for anyone who did not meet with his approval. The very reverse of Sao was Nam, or the Namoi as they called him. He was our cook; a dirty, shrinking, humble, little old thing, who, inasmuch as he was worthy and longsuffering, soon became the butt of the party, and though incessantly chaffed always maintained his good-humour. Poor simple soul, Nam trotted on from country to country, alike unmoved by change of scene or people, with never a question as to whence he came or whither he went, but preparing our food throughout with conscientious regularity. Only when



Nam.

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tobacco ran short did Nam begin to be unhappy : then, indeed, the situation became serious to him. Nothing was more characteristic of our *chef* than his engagement. One day at Saïgon, we were seeking a cook before leaving for Annam. It was ten o'clock ; we started at noon. Someone brought Nam to us. "Are you willing to come?"—"Yes ; I will be ready at four." "That won't do ; we are off in two hours."—"All the same ; I come back." And so, hired at the outset for only a few weeks, the Saïgonnese was attached for many a long month to our retinue. A lofty principle enlightened the breast of this primitive Asiatic, and explained his conduct. Nam was a widower, with three children—three little gnaos whom he adored, and for whose sake he would walk far and work hard to bring back money.

Besides our Annamites (the boys rarely gave their names, and were known by their numbers, "Five," "Six," "Three," etc.), we had with us a Chinese, big and bony, with an oily yellow face, evil, treacherous, and hateful. This was our interpreter, François. He spoke French well, and was furnished with good credentials from officers of the ships on which he had been a cook, as well as from the mines of Hong-Hay, where he had been employed. I found him at Langson, and engaged him at once ; for it is difficult to meet with an interpreter in Tonkin who can speak the Chinese of Yünnan, which is the tongue of Chang-Hay, the pure dialect of the mandarins. In the districts we were about to pass, Cantonese would be of no use. Although I had written two months beforehand to Tonkin to secure an interpreter, only one could be shown to me, and he smoked opium so heavily, and demanded such exorbitant pay, and a chair to travel in, that we deemed ourselves lucky to secure François, despite his looks.

We had a great amount of baggage, and were fortunate in

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having the assistance of M. d'Abbadie to escape paying excessive dues. We divided it into two parts—one to take with us, and the other to be sent from Mongtse straight to Tali, as a reserve. In the belief that our experience may be of use to future travellers, a list of the contents of the packages will be found in the Appendix.

We reached Yen-Tay on the 29th January, after a pleasant passage under the escort of two friends. I found it much changed since 1890. The large straw huts had been replaced by stone barracks, some good houses had been built, and a small club erected. I took advantage of our halt to visit the coal pits belonging to M. d'Abbadie, about a mile above Yen-Tay; the workings extend on either side of the river as far as Tray-Hutt. The coal is gaseous, yielding 20 or 30 per cent. of volatile matter, compared with 10 to 15 per cent. in that of Hong-Hay. Traces of petroleum have been found in the neighbourhood, and an engineer is about to take out a concession for graphite.

After a stay of two days we went on board the *Bahoa*, a launch of only a few feet draught. The water was falling, and as this was probably her last trip for the season we arrived only just in time. We took leave of our friends and of the officers who had given us so cordial a reception. From henceforth we should not look upon the tricolor again for a long time, and here we left behind the limits of civilisation to enter upon the freedom of travel. We were eager to get forward, and I was impatient until I should find myself astride a nag, with a pipe in my mouth, seeing things which others had not seen, in strange countries, where the interest of the day cloaked the uncertainty of the morrow.

The ascent of this part of the Red River was not as rapid as we could have desired; we were continually running aground

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upon sandbanks. I could not but admire the address with which our crew of twelve Annamites sprang into the stream and laid out hawsers ahead to haul upon. It took us sometimes five or six hours to gain about a hundred yards. During these checks I employed myself in making washings of the sand of the river, finding in it numerous small garnets.

Owing to this lowness of the water our transit occupied five days between Yen-Tay and Laokay. The latter little town had not altered. Its houses and huts, grouped on the left bank of the Song-Coï, are separated by an affluent of the river, called the Nam-Ti, from the Chinese village of Song-Phong, a regular haunt of pirates and evil-looking gallows-birds. Song-Phong is flanked by a range of hills forming the frontier. The crests dominate the slopes of our side, and are Chinese, capped by our neighbours with a series of forts. On the right bank stood the barrack of Coklen, a quaint building of many roofs placed one above the other like canisters.

At Laokay we received the hospitality of the river agent, M. Dupont, who had been so obliging as to purchase horses for us, and to write to Mongtse for mules. From him we obtained some information about the place. Commerce has scarcely made any advance for several years. The opium farm has been abolished, but the monopoly of the drug with China has been given to an individual, who encumbers the sale with a 10 per cent. profit for himself. Similarly, the pacification of the district is at a standstill. Five years ago one could travel round Laokay with more security than now. Fresh bands had overrun the province. Colonel Pennequin had driven them back into the province of Tulong, half of which belongs to us. The Chinese, objecting to their neighbourhood, requested us to relieve

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them of their presence, and, at the intercession of the Tsung-li-Yamen, our troops received orders to dislodge the pirates from the whole of Tulong. Those who troubled us no further now returned into our territory; to counterbalance which, and by way of showing their obligation for our good offices, we had the satisfaction of seeing more than one hundred and fifty Chinese regulars transfer themselves to our enemies. Actually, upon the right bank a band of more than three hundred might be counted. Armed junks constantly patrol the river to guard the navigation. But our troops are tired out: there are not enough of them.

During our stay at Laokay we took part in a hunt which was as curious as it was unexpected. Whilst at breakfast with M. Dupont we saw a sudden stir at the water-side, people running down to the river, and boats casting off as hard as they could. Out we rushed: and here was the cause of all this hurly; a stag, which had innocently descended to the brink, had been viewed and headed back by some soldiers on the right bank. The entire population turned out in pursuit; the waters were churned by a struggling crowd of junks, pirogues or dug-outs, and human beings, all making chase down stream. A light tricolor on the head of the quarry alone was wanting to make the game resemble a 14th July water-frolic. The poor beast did not know which way to turn; it managed to escape a blow from a boat-hook, which only wounded it; it was but to prolong the agony, for some swimmers awaiting it lower down grappled with and finished it. Then came the question as to who was to eat it: every boatman, with a storm of oaths and protestations, claimed it as his own. In the midst of these awakened appetites one felt inclined to pity the animal; but then, "que diable aussi allait-il faire en cette galère?"

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At Laokay we left the steamer. From here we were to proceed in a junk retained for us by M. Dupont. But the boatmen declared, not without reason, that two junks with sixteen men were necessary for such heavy cargoes over some of the rapids. So we had to wait another day and a second junk, and twenty-four hours were cut to waste in this our first encounter with the Chinese. I warned my companions that they would have to lay in a stock of patience before dealing with the Celestial. They soon learned the justice of my remarks.

The mandarin of Song-Phong sent us his card, with a demand that we should pass the custom-house and submit our passports to his scrutiny; adding that he would then furnish us with a guard of soldiers. Our answer was the same to both demand and offer: we were in French waters just as much as Chinese, and wanted nothing.

The morning of the 7th February saw us under way on two junks, each about 80 feet long; the crews were ranged fore and aft, the rudder was formed of large spliced spars, and the waist of the vessel was covered in with hatches. Poling was our chief mode of progression; and this the men performed adroitly and in time. Whenever it served we took advantage of the wind. A huge rectangular sail was hoisted upon a couple of masts, stepped in the shape of an inverted V, to catch the least breeze, for which the men continually whistled. We were told that, dependent on its being favourable or the reverse, the voyage would occupy three days or a fortnight.

Æolus was happily propitious, and we sailed along at a fair pace. The crew was composed for the most part of hybrid Chinese or Mann mountaineers, neighbours of the Thos, and wearing the Chinese pigtail and blouse. I used to chat with them of an evening

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when the boat was tied up for the night. They told me how, away in the interior, beyond Longpo, the inhabitants were hairy, and of others who had little tails, and sat upon seats adapted to their conformation. I had already heard a similar distinction attributed to the Moïs. The conversation drifted into legends, and I inquired if they knew the Chinese story of a country where there were only women. They replied in the affirmative, and added that it was an island in the midst of a lake which none might cross, for the waters of it were so light that a feather cast on the surface would not float. "And that is why," said they, "we have never landed on the woman's realm."

A laughter-loving lot, these boatmen also were hard workers. Although less strong than when I had descended the river at high flood, the rapids still were numerous; and it was necessary at each for the double crews to pass the junks through singly—a tedious operation. The features of the country were monotonous; valleys enclosed by hills, sparse villages. We saw rather more on the afternoon of the 10th February, some days after leaving Laokay. In one bend of the river we discovered a religious monument in the shape of a rectangular column with a niche at its base. Hard by was a small town of bamboo houses, and others white in a setting of large red-blossomed trees. The name of the place was Manhao. Down by the river lay a number of junks, with their grove of A-shaped masts, flying a little flame-like flag or sometimes a cock's tail. On the opposite or right shore appeared a hamlet of thatched one-storey houses, reached by a terrace of stone steps, shaded with fine trees. The site of this place, Lao-Minchang, was fresh and picturesque.

Our men were very pleased with themselves. They had not told us that we were approaching the end of our stage, but kept it

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as a surprise. They now offered thanks to their gods for a prosperous voyage by burning strings of crackers. And indeed we had been lucky. We learned later in a letter from M. Dupont that a band of pirates had actually set out with the intention of capturing us and holding us to ransom. They had even provided themselves with grenades to throw into the junks. We owed our safety to our speed.

If we had enjoyed quick progress by water, in revenge as soon as we set foot on land we made acquaintance with those interminable delays which are due to the apathy or the ill-will of the yellow race. We wished simply to pass through Manhao and to push on to Mongtse, where we should be able to engage muleteers, organise our caravan, and forward our reserve baggage to Tali. It took us four days before we could even start. Our first difficulties were with the custom-house. The coolies refused to disembark the loads without authority. The officials insisted on a declaration, which I refused, as our passports for the *Yiennan* dispensed with it. I invited them to come on board : they would not be at the trouble. I threatened them with all the thunders of their chief at Mongtse : they did not seem perturbed. Nor was it until after long hours of discussion that I obtained a permit which was our due, and which they might have issued at once.

We put up at the house of a merchant who spoke French and had been M. Bleton's interpreter. He was a small wizen creature, whose emaciated features and shrunken semi-transparent hands at once told the tale of the baneful opium passion which enslaved him. Nevertheless he rendered us service in settling money matters. We had to arrange for the transport of ourselves and baggage to Mongtse. Our ponies had certainly arrived from Laokay, and proved sturdy and clever ; but we now learned that the mules which

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article of contraband at the Manhao custom-house ; the dues are collected at Mongtse. The rock-salt comes down in small boats from the mines situated four or five days farther up the river.

Whilst at Manhao the market was held, which every week attracts the villagers of the surrounding country. The scene was one of great animation ; and we were able to get a glance at many of the hill folk, with their different dresses and dialects, with whom we were later to come in contact. Here was a Poula woman, wearing, Chinese fashion, a mantle with green and red trimming ; upon her forehead was bound a kerchief, studded with little silver knobs, and adorned on either side with cowries and red worsted tassels, behind which fell two lappets, embroidered horizontally with green and red. The same colours and dress are to be found among the nomads of Thibet. The Poula lady had a bronzed oval face, and small features, except the lower lip



Young Hou-Ni Woman.

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and the chin. A more original head-dress was one which we saw among the Lintindjou women. On a little knot of hair was perched a plaited straw circlet, like those worn by the Annamite sharpshooters, from which hung a fringe with white tassels. The

costume was composed of a jacket, fastened with two silver clasps, black trousers, and linen bands tied round the ankles. These natives seemed very shy. One woman, of whom I took a snap-shot, had a vivacious little face, with strongly protruding forehead, and eyes that were scarcely at all oblique. She was clearly dis-



Lolo Woman at Mongtse.

tinguishable from both Chinese and Annamite. Some Hou-Ni women were also pointed out to us, clothed in tunics which descended to the knee, and wearing on their breasts a round silver plate, with designs of crabs and scorpions.

This first glimpse of the native population only increased our

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desire to see more of them, by taking a different route to Ssumao on the right bank of the Red River. To the questions we put at Manhao, the reply was that there was no road but that followed by the caravans through Mongtse and Yuen-chiang. The telegraph clerk, however, mentioned to me that he had heard of a path on the right bank, though a very bad one. Here, at any rate, was a clue. Roux and I discovered this path on foot, saw that it continued in the distance, and was fit for mules. While reconnoitring, we passed through the pretty little village of Lao-Manhao, opposite which was a wood of mimosa, tamarisk, and other trees, covering the base of the hill. I have rarely found a spot of equal fragrance, and interest for the ornithologist; small birds in great variety fluttered in it, and I secured some good specimens.

The mode of employing our time in Manhao was pleasant enough, but it was not getting on at all. So that it was with pleasure that we saw one part of our effects start under the care of M. Dupont's factor, who was to convoy them as far as Mongtse. We made a bargain for some mules, at the rate of nine "tens" apiece to Mongtse, which was one "ten" more than the ordinary tariff. They carried thirty-eight of our packages.

On the 14th (February) eighteen pack animals, sent to us from Mongtse, came in. We were now able to depart. At the last moment another delay arose in the disposal of the loads, which were too heavy. The Yünnan method of loading the animals was to place a pad upon a wooden saddle, with two side pieces fitting close to the shoulder. There was no girth; the saddle was simply kept in position by breast and crupper straps. Either flap had on the outer side a small wooden peg, sole support of a light and capacious frame, to which the baggage was secured

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by leather thongs. The advantage of the system is that the harness is independent of the pack, and one can off-saddle for the night without disturbing anything. The ease with which one can disencumber the mule facilitates his passage in dangerous spots. Indeed, being thus able to rid himself of his burden, he often availed himself of this avoidance of accident on his own account. When the weights are even, as may easily be managed with tea or cotton for cargo, the mule can carry much without suffering. But with mixed lots, such as ours, the system of loading caused sores. The treatment of the mules consequently called for great care. The average load was from 120 lbs. to 140 lbs., half on either side. Those that gave most trouble were the chests containing money. Each one in itself was 120 lbs. They had therefore to be distributed. We were carrying to Mongtse piastres to exchange there against Chinese ingots, and, as robbers were numerous, they required watching.

In the afternoon we were at last ready, and the real journey commenced. Being in high spirits at the prospect of active employment, everything seemed interesting and picturesque. Things struck us which soon we should not heed: the boys upon their ponies, odd-looking figures in their half-European half-Annamite get-up; the interpreter, perched high on a heap of rugs, with a dirty squash hat on his head, and his toes thrust into loops of straw for stirrups. Each of us was no doubt a caricature to his neighbour.

The first part of our route was a steady ascent, from 510 feet to 6,150 feet. The mules climbed sturdily in single file, urged by the shouts and imprecations of the drivers. You can't travel in Yünnan without constant "*maleficous*." The leader bore our red flag, with my name on it in Chinese characters. It was the

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same which had already seen service with me from Koulja to Tonkin, five years before. Who knew what countries it was to behold this time!

It took us two days and a half to reach Mongtse, sleeping each night in the corners of the inn stables. On the way we passed a strange series of isolated hills, like detached sugar-loaves, and christened them the Cone Chain. At their base we came across many funnel-shaped depressions, which in semblance might have been the moulds in which the cones had been cast. The only vegetation was scanty grass but ill covering the grey stones. Although only at an altitude of 6,175 feet, we received the impression of high summits. A closer view revealed that these mountains could not be attributable to volcanic formation, as one had first been inclined to believe. They were of grey limestone, like those of the bay of Along. Traces of coal in the neighbourhood tended to confirm the idea that the same geological forces that in Tonkin appear as cliffs here showed themselves in cones.

After descending from the Cone Chain, a march of varied elevation brought us to a rocky gap surmounted by a little pagoda. Before us lay the great plain of Mongtse. For two hours we continued at a round pace through cultivated fields, and past the small town of Si-ngan-tso, until we checked our beasts beneath the walls of Mongtse, in front of a spacious white building used as the French Consulate, and were received by MM. Guérin and Mark.

This last-named gentleman bore on his hand the trace of a recent wound. Some time before, he had been attacked in his house by six men armed with spears. He defended the door of his room behind a barrier of chairs, but received a blow from a pike through

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the panel. On the alarm being given his assailants fled, and, it is needless to add, were still at large.

Having bestowed our belongings in the consulate, we prepared to remain there a few days. Mongtse was the last town of relative civilisation which we were likely to see for a long time, and we had to make final arrangements for both our own caravan and for the forwarding of our reserve. Here I met an old acquaintance, a missionary, known before in 1890 at Yünnan-Sen, and his experience and advice were of great value in our equipment. The Father at this period was at loggerheads with the Chinese Government. Having been charged by Monseigneur Fenouil to establish a mission station at Mongtse, he had bought a house and signed the agreement with the owner. This done, he sent the title-deeds to the Taotaï for registration. But the latter, instead of returning them, passed them on to some notables, to whom the property was thus made over. Our consul vainly demanded restitution. As for the missionary, he adopted the only mode of retort to the knavery of the Government, by refusing to budge from the house when once in it, unless another, on which he had his eye, were offered in its place. These tricks of the Chinese in the case of the missionaries did not astonish me: I knew them of old. Our countrymen may deem themselves fortunate when the vexation is confined to petty annoyances. On the voyage from Aden to Indo-China we had on board a missionary of Yünnan, who was again bound thither after a visit to Paris to be healed. This Father Vial had received fourteen knife stabs, several of his ribs had been broken, and he showed me the scars of the wounds. I should have liked some sceptic Thomas to have had the same privilege. When attacked by the myrmidons of the mandarin, Father Vial owed his life to his single strength of will alone. He was returning bravely to his post, as if nothing had

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happened; and certainly the satisfaction extracted from the Chinese Government by the representations of our consul had not been granted out of any goodwill to the Father. Most of the braves were banished to another province—a trivial punishment for men who had no ties. They did indeed select for condemnation one man—he was already dead from natural causes in prison. As for the instigator of the outrage, he was of course undisturbed. It was declared at Pekin that the affair had been exaggerated, and that the reparation was ample. One cannot help thinking what idea of our power the Chinese are likely to derive from our acquiescence in such procedure. After this there is small room for surprise at their attitude towards our Frontier Delimitation Commission. Already it had been attacked in the basin of the Black River, and was reported to be followed by three hundred pirates ostensibly in “the service” of the mandarin of Yünnan. Whether or no, it is certain that the Imperial commissioner betook himself to Mongtse, under pretext of resting from his labours. For ourselves, as travellers, by making the best of things we might hope to pass through without active molestation.

First of all we had mules to buy. It was difficult to procure any at Mongtse, for the Pavie Mission had taken a good many, and the mandarin himself had just purchased twenty beauties for twelve taëls apiece—fixing his own price. M. Gérard, a Frenchman in the Customs, kindly offered to help us, and spent three days in the mountains among the dirty Miaotses, bringing back fifteen mules and a promise of seven more in a few days. We paid on an average thirty taëls for each animal. Then there were pack-saddles to get, straps, and blankets to cover the chattels from rain and the men at night. The beasts were next roughed, and branded on the shoulder with an O. Finally came the question of the hire of followers.

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We took seven to begin with. One of them, Li, small, youthful, and marked with smallpox, looked more of a hillman than Chinese, though he hailed from the Yangtse. To him was given the command of the others, with the title of *makotou*, or leader of the caravan.

His subordinates were simple muleteers, *mafous*, paid at the rate of seven taëls a month through him. He received more, would cater for the men, do the same work as they, and act as farrier and vet. to the expedition. In his latter capacity he did not omit to ask for an advance to purchase drugs.

Some of these



Chinese working rude Crane.

arrangements had afterwards to be modified, but for the present our *mafous* were all smiles and sweetness; the day after their engagement they brought us bouquets of jasmine. Loads were apportioned, saddles adjusted, supplies laid in, and all with the greatest cheerfulness. The *makotou* was quick, and did most of

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the duties. "If in three days my men don't learn how to work," said he, with a significant gesture, "I take a board and touch them up behind." The Chinese do not look far ahead; the present is enough for them as long as they are well off. An incident occurred here which was characteristic. Sao and a Cantonese lad, François' personal attendant, quarrelled, and the Annamite struck the Chinese with a hatchet. I do not know which was in fault; but the interpreter, naturally taking the part of his compatriot, without referring to us, straightway lodged a formal complaint. The matter might have become complicated; so we interposed, and, putting Sao under temporary arrest, deposited a sum of money with M. Guérin—one part for the care of the Chinese, and the other as an indemnity. I may add that the servant, a true Celestial, preferred the gain to the grievance.

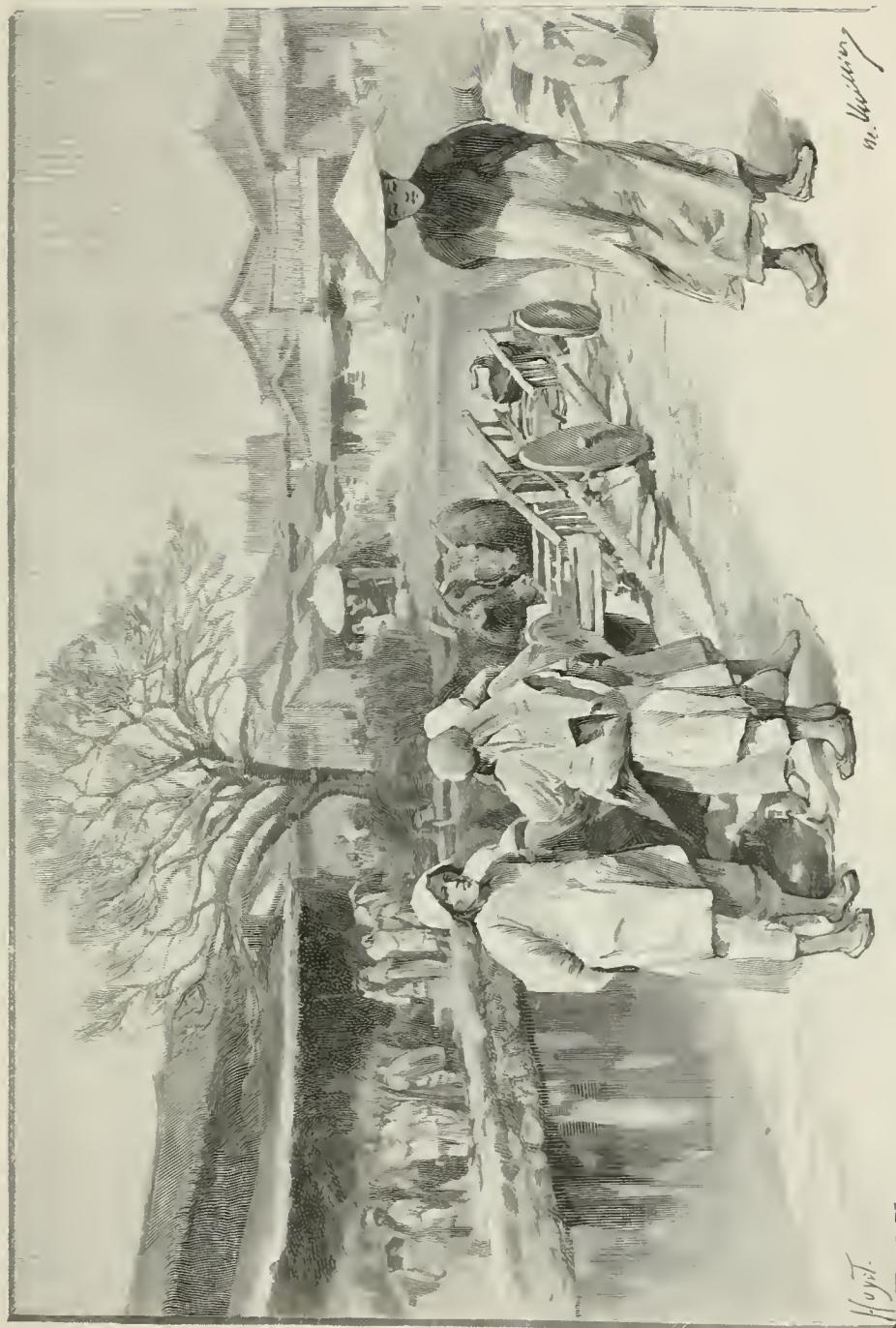
One of the chief difficulties of the traveller in China is that of money. The coin must be carried in bulk. We intrusted our stock of piastres to three jewellers, who melted them down at the rate of a thousand a day. A powder thrown into the fused mass caused the copper to separate, the silver was run into moulds, and we received it in dainty ingots, pitted with small holes like a sponge, and inscribed with Chinese characters. We sent a portion of our meltings on to the care of the missionary at Tali-Fou. There is a company formed for the transmission of money by post in the provinces, with insurance against loss by robbery; but unhappily this was not in operation between Mongtse and Tali. We were obliged to take a draft on Yünnan-Sen, whence the mission would forward to us. The first banker applied to refused the accommodation when he knew what was required. An order had been issued by the Taotaï against any aid to Europeans. I recognised once more the habitual grace of the Chinese authorities. Luckily, another

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was found whose official fears were not proof against his money greed, and our remaining specie was transformed into two cheques of 4,000 and 2,000 taëls. We gained by the exchange, as our silver received a value of 20 per cent. over the capital.

It may be imagined that all these dispositions were not completed in a day. Before arriving at any result much time was consumed in arguing, bargaining, and making *chang-liang* in Chinese parlance. We turned the intervals to advantage by examining the town and its environs, and in conversation with the few European residents.

Mongtse contains about 11,000 inhabitants. The place offers but little of interest, and is quiet. The people, accustomed to the going and coming of whites, appeared indifferent to our proceedings, although the most extravagant reports had been spread about our arrival. It was said that a king's son (Chinese, "*tchingouan*," prince) was coming up to Mongtse with a thousand armed men. I was used to these legends. Every week on market day the streets presented an interesting spectacle. At the entrance, outside the rampart, long strings of carrier oxen stood waiting behind the straw-wrapped bales of yarn or sheets of tin for the custom-house examination. Crowds of country folk thronged the gate, the Poula element predominating. The women of this race, with round faces sheltered under linen bonnets somewhat resembling those of the Little Sisters of the Poor, crouched beside baskets of vegetables. The men wore small open vests and a blue turban, round which they twisted their pigtails. Here an old beggar woman chanted her nasal plaint to the accompaniment of oblong castanets. She was not bewitching,—we were far from an Esmeralda,—but we threw her a few sapecks. There went by the tinker, with his professional cry of "Pouko! Pouko!" At a



Near the Market-place, Mongolia.

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little distance squatted some men round a mat, silent for the most part, but each attentive to what was going on round him, as shown by the small and glittering eye. Some rustics who had



Poula Women, Mongtse.

made good bargains stopped to gamble away most of their gains to the Chinese. An umbrella with pink silk fringe came in view, and at sight of us was hastily and jealously lowered by the modest charmer. Mongtse and Lingau-Fou are said to be the

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only two Chinese towns where ladies of rank come out on foot in this guise. I paused at the stall of a silversmith, and watched him at work as among the Laos States, his silver plate resting upon a wax mould fixed to a block, while with mallet and chisel he shaped his trinkets. A murmur behind us apprised us of the approach of some notable, and we drew ourselves up to let the procession pass. First advanced matchlock men, fairly well set up, with flags and a gong beater at their head. In rear of them were borne wooden placards, banners representing the Imperial dragon, and a huge screen in shape like a leaf. Then followed six boys in long red and green skirts, with caps of the same colours, and a big gold sword at the shoulder. Next came men armed with tridents, and two others blowing trumpets—the long copper trumpet well known amongst the pirates of Tonkin for its rallying note. More long-robed children, extinguished under pointed astrologers' hats, and shouting for all they were worth. Then civil dignitaries; men of letters with crystal buttons; mounted mandarins in silk robes brocaded with gold, and horse-tails waving from their hats. And last of all, the main figure, lolling in his heavy green litter, was borne the *tchentaii*, or military chief.

This General Ma was a good friend to us. In appearance he was big and corpulent, with an aquiline nose. In faith a Mussulman, and well disposed to the French; in all difficulties between the missionaries and the authorities he tried to make things smooth. Following a visit which we paid him, came an invitation to a great feast which lasted fully two hours and a half. The Mussulman cuisine was excellent, and consisted of plates of rice, potatoes, mutton killed according to the rites and prepared strictly without pig's fat. For drink we had champagne alternating with



Group of Inhabitants, Mongtse.

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“tchaotiou” (Chinese o.d.v.). We were offered a vintage dating from 1870, and brought from the capital. The general insisted on drinking healths with each of us in turn, without heel-taps. His children—a large-eyed little girl of an Indian type of face, and a boy with a fine fur-embroidered cap—came in to see us, and made the round of the table, bowing before each guest. Our host appeared very fond of them, which is common enough in China; but he had an exceptionally frank manner towards foreigners—a disposition I have remarked among Chinese Mussulmans very different from that of their Buddhist fellow-countrymen. The missionaries rarely have to complain of persecution at the hands of the Houï-houi or the Houé-dzeu, as the disciples of Mahomet are called in China. So far from attacking the Christians, they sometimes even support them; but they never become converts. “You have a God,” they say to our priests; “so have we: we both have a book; let us be friends.”

The general did not speak to us on religion. He came to see us at the consulate on foot with a small retinue, which for a mandarin showed a very unusual freedom from formality. He was interested in our firearms, and inquired their cost; and hearing us express some wish, sent us milk and native cigars as a present. I think if I had never had to do with any Chinese but Ma I should have formed a different opinion of his compatriots.

Besides the consular and missionary staff, we found very agreeable society at the custom-house. The superintendent was an American, Mr. Carl, a connection of Sir Robert Hart, and well qualified to give me interesting commercial statistics. The greater part of the merchandise is of English origin, and comes from Canton by Pésé. The trade returns give a total

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of 2,185,200 taëls, in which Tonkin unfortunately is only represented by 313,983 taëls. The slowness in the development of our commerce with China is to be attributed to three chief causes:—

- (1) Our houses do not study the taste or pocket of the natives.
- (2) Freight on the Red River is too high. For instance, wicker chairs at fifty piastres have to pay thirty piastres from Hong-Kong to Manhao.
- (3) Salt, which formerly served as a medium of exchange between Tonkin and Yünnan, can no longer, thanks to a clause in the Treaty of 1885, be introduced into that province.

We know our errors; it is for us to remedy them, if we would profit by the privileged commercial position which Tonkin gives us on the flank of China. I cannot too strongly insist on the danger there is of our playing the rôle of the hare to the English tortoise. Whilst writing these lines I have before me the last Report of the Royal Geographical Society, in which is marked by a dotted line the railway *in course of construction* from Mandalay to the frontier of China. The English have 275 miles in a straight line to traverse. We, who from Hanoï to Laokay have only 135 miles, or half as far,—what are we doing?

The reader will pardon this digression, and impute it solely to my desire to attract attention, whenever I have the occasion, to questions often neglected, and moreover of exceptional gravity for the future expansion of our trade.

The grounds of the custom-house adjoined those of the consulate. A house is valued here at from 2,000 to 3,000 taëls, the expense being largely enhanced from the distance which wood for building has to be brought. Although verandahs are

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common, one need scarcely seek shelter from the sun; the climate of Mongtse is splendid; except in the two rainy months (June–July, or July–August), it is almost always fine. The plain is healthy for Europeans. The natives have to fear the plague,



A Street in Mongtse.

which is endemic, and seems to haunt certain localities of Yünnan without any cause. The sickness generally comes in the summer, and sometimes claims four thousand or five thousand victims. First to be attacked are the rats, which may then be seen

FROM TONKIN TO INDIA

scampering in the streets, jumping and writhing as if mad. Then comes the turn of the cats. It is as if the poison rose from the ground, and, mounting, infected in succession all it met. In the case of human beings the malady shows itself by a swelling of the glands. The missionaries have successfully employed as a remedy a strong emetic. Europeans are seldom included in its ravages.

The food resources are plentiful; mutton and beef one owes to the Mussulmans; and fruit and vegetables, European as well as native, abound; strawberries, peaches, apricots, and nuts being good. There are many pretty walks in the neighbourhood; in the mountains you may find silver pheasants and hares, while the rice-fields of the plain teem with water-fowl and white herons. The Chinese protect the latter birds; they say they carry the souls of the dead to heaven; and upon their tombs in their religious designs they give a symbolical significance to the heron analogous to that which we give to the dove. There is something similar among the ancient Egyptians.

Europeans receive two posts a week—one through the custom-house, the other through the consulate; they come in five days overland from Laokay *via* Sinchäï.

CHAPTER II

FROM MONGTSE TO SSUMAO

Departure from Mongtse—Descent to Manhao—Cross the Red River—Mafou Fears—Exploration—On the Right Bank; Ascent—Difficulties with our Men—The Hou-Nis—at Fong-chen-lin—Hospitality of a Chinese Mandarin—Hydraulic Pestles—The Liutindjous—Hou-Nis again—By the River Side—District of the Païs—First Appearance of Lolos—New Natives of the Miaotse Tribe—A Few Words on the Natives of Yünnan—Pretty Country by the River—Isa; Particulars of—Hou-Ni Adventure—Souto; Discovery of Lolo MSS.—Fresh Facts about the Hou-Nis and the Païs—At Lou-tchou; Lodge with a Lolo Chief; Information concerning the Lolos—Our Followers—François—The Urchin—Victims of a Theft—Our Prisoners—Death of my Horse—Difficult Passage of the La-niou-ho—Renewed Trouble with the Mafous—More Natives, the Hatous—Passage of the Black River—Fire!—Muong-le—Halt at Muong-le; Tidings of M. Pavie—The Market; Trade Statistics—Scene among the Mafous—On the Road again; a Hailstorm, and its Effects—Worship of the Wood Deity—in the Basin of the Mekong—Forest Bivouac—500th Kilomètre—Chantzeu and his Steed—Pretty Scenery—Arrival at Ssumao.

WE quitted Mongtse finally on the 27th February. What we did not take with us we left in the care of the consul, to be despatched by caravan to Yünnan-Sen and Tali. By the same route we were to receive a chest of a thousand rupees and some photograph plates which had not yet reached Mongtse.

Our start was the signal for the letting off of crackers and muskets. All this uproar, which is a conventional attention in China on the arrival or departure of travellers, was not at all to the taste of our horses, and caused them to be restive. In a couple of months you might have fired a field-piece without making the same worn-out beasts twitch an ear

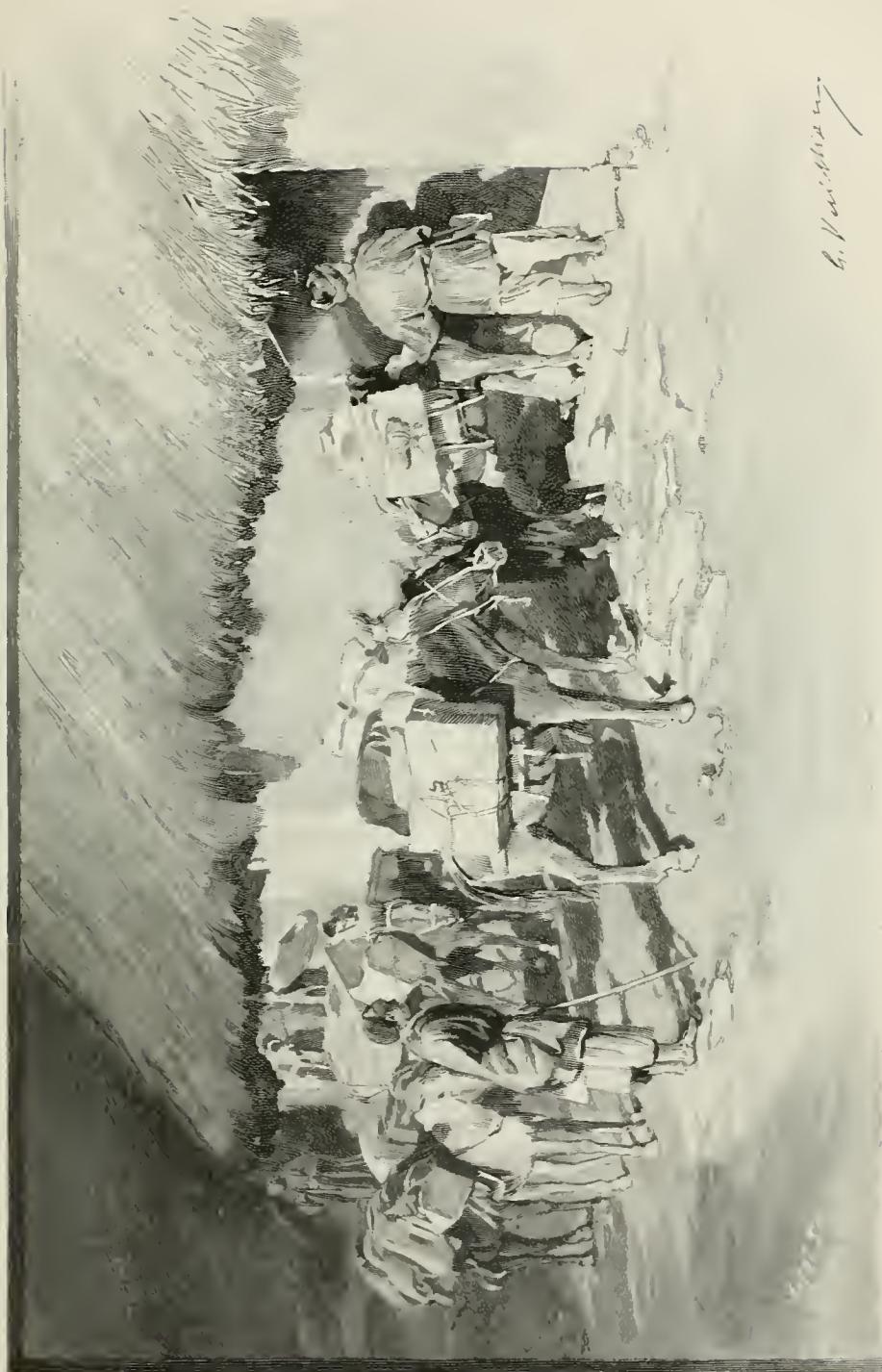
FROM TONKIN TO INDIA

The usual road to Ssumao and the West was by way of Yuenkiang and Ta-lan; so, when we turned our faces again towards Manhao, François officially was for setting us right. But we purposely adopted this slightly longer route, which, though known, is not marked on the maps. As we retraversed the plain, strewn with iron-ore, we saw flocks of grey cranes with black heads, looking in the distance like peasants at work. With the approach to the mountains the flora changed; I found gnaphalium, asters, pretty pink primroses, and by the side of these plants of high altitudes some small crimson azaleas such as are met with on the banks of the Black River. The weather, which had promised well, suddenly changed, and we were caught in a storm of hail. At once the songs ceased; silently we plodded in Indian file, the horses slipping and falling continually. It was the beginning of our troubles. I dropped behind, and lost the way. Roux came back and sought me in the dark; we could not see where to place our feet, and it was with difficulty and many tumbles that we at length gained our camp. Rarely had a cup of tea seemed so refreshing.

The next day we were back again among the quaint Cone Hills. Not far from here I noticed in a field a bier covered with hay and surrounded with thorn branches; the dead body awaited transport over the mountain for burial in consecrated ground. We shared our sleeping quarters that night with a caravan of tin. At all the inns they feed the animals on chopped straw, so that the sound of the cutter was going pretty nearly all night. As the stage had been a short one, we had tasted the charm of arriving early, and it was pleasant at sundown to get into the open country far from the din of the caravan and the chatter of the Chinese. I seated myself on a mound above the path, and

Ch. Vansittart

Inn between Mongtse and Manhao.



FROM MONGTSE TO SSUMAO

watched a group of Poula women laden with wood, the weight of which was sustained by a linen band across the forehead. On catching sight of me they hesitated whether to advance, but at last plucked up heart to pass in a body.

On the 1st March, in the morning, we re-entered Manhao, after a few ordinary experiences by the way. We met two men carrying



On the Red River.

a corpse by head and heels, slung to a bough, on which a sacrificial cock was fastened. The cortége, preceded by a man gently tapping a small gong, disappeared up a narrow defile, and we heard the receding sob of the gong long after it was lost to view. Unbelievers these Chinese may be, but they will traverse mountains for the sake of burying their dead in hallowed ground. At another place we encountered a minor chief with the usual accompaniment

FROM TONKIN TO INDIA

of red flags, scarlet robes, blue trousers, and yellow straw hats, contributing with the bright sunshine in an arid country to a dazzling and picturesque effect. At Manhao we only stopped for breakfast, deeming it more prudent not to halt our followers long in a town, as we were about to attempt the route on the right bank of the Song-Coï, of which Roux and I had found the beginning. To cross the river we had to put the saddles and loads on small rafts, and then tried to pass the animals over by swimming. These, however, did not see it in the same light, despite shouts, and blows, and volleys of stones from the urchins in the crowd which had come out to see us. After prolonged struggles and breaks away, swearing man triumphed over stubborn brute, and by dint of lifting the intractable ones a hoof at a time on to the raft we all got over. The makotou proved himself resourceful; but as for François, he contented himself with playing the part of the fly on the coach-wheel, and stood by the brink dangling his day's food—three fishes on a string—and offering useless advice. Our mafous expressed great surprise when we announced that we should camp farther on. They did not know the way,—there were no inns. "What were the tents for, if not to sleep in the open?" said we. "How were the beasts to be fed?"—"Carry grain for them, and three days' supplies for yourselves." François then struck in: There were pirates on the right bank, and they had long guns.—"So much the better; we shall be able to photograph them."

It was clear that our people had not reckoned on this style of travel, and counted on following main roads and always sleeping within four walls; the Annamites, on the other hand, followed us in silence. The delay at the ferry made it impossible to go far that night, so we camped on a sandbank by the river, and experienced the real joy of being independent in the middle of our own troop.

FROM MONGTSE TO SSUMAO

From here the true work of exploration might be said to begin. Before us lay the unknown. Perhaps illusion sometimes colours our impressions. Well, illusion let it be! I believe in dreams, and pity those whose sterile minds no impulse ever stirs.

Amongst the latter might be classed our mafous ; they were no dreamers. Yet, was it imagination that led them to take two shining sparks in the thicket behind us for living panther's eyes? We had to fire our guns to reassure them. These fellows began to see that our journey meant business. On arrival at the camping-ground one of the mules was missing, having been allowed to straggle by the way. What was worse, it was one that carried specie. After two hours' search it was led in ; but these early troubles disheartened the makotou, who sat himself down and wept, declaring that he could not do everything by himself. We soothed him with commendation, and he presently forgot his woes in the consolation of his opium pipe.

He would not perhaps have slept so soundly had he known what awaited us on the next day—one of the hardest for man and beast in the whole of this part of the undertaking. A week later we could not have performed this stage, at least in one piece. It was uphill all the way and fairly good going, but followed the crests without deviation. I pitied our animals : the horses struggled gamely, scrambling up the steepest bits, and every now and then stopping abruptly to regain their wind. The march seemed unending ; no sooner had we topped one summit than another rose before us. Once the track led us through a wood, where we saw some natives hunting a stag with boar-spears, a dog, and a horn like a sea-conch. I marvelled at the agility with which they sprang over the boulders. In the afternoon we passed from the valley of the Red River into that of one of its tributaries. The hillsides here

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were covered for two-thirds of their height with rice-fields, rising in regular terraces, over which water trickled in a series of cascades that glittered like glass in the sun. The stream was conducted in canals, whose horizontal lines could be discerned for many miles following the contour of the hills. This method of irrigation was quite a work of art, all the embankments being thrown up by hand and stamped hard by foot. In Madagascar the rice-fields occupy only the hollows; here they scaled even the flanks of the hills, and I could not but reflect on the capabilities which these peasants might develop in the vast tracts of fertile land unused in our colonies. Here and there were sparse patches of trees or scrub, with groups of enormous bamboos and a profusion of varied ferns. In this damp climate it was not uncommon to start in the morning in thick mist, which rendered the path so slippery that the horses could not keep their footing on the shining rock and sodden grass; and falls were frequent. The mafous, who shiver at 50° Fahr., grumbled and invented fresh pretexts every day for shortening the stage. It was now the 3rd of March, and already they talked of leaving us. The interpreter, of whose sullen disposition we had also had evidence, joined them and announced that he would go no farther with us. His conceit was unendurable, and often made him ridiculous. One day, upon Roux making some remark on the route, François told him there were Chinese maps.

"Yes; but they are no good," replied my companion.

"You French say that, because we have three thousand words, and you can't understand them," was the rejoinder.

We were placed in a somewhat awkward *prédicament*; for we were dependent on our muleteers, and could neither here nor at Manhao find others to replace them. We adopted conciliatory measures, and, by lightening the undoubtedly severe labour of the

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mafous and slightly increasing François' pay, tided over the difficulty. The treaty of peace was cemented by the slaughter of a fat pig, and we were "Tajen ho!" ("the great and good") once more.

The villages where we usually passed the nights in more or less discomfort were collections of thatched huts from twenty to sixty in number, in the best of which we spread our rugs on wooden bedsteads, and, to my surprise, were not devoured by fleas. Beyond a few Chinese traders and innkeepers, the population was for the most part Poula or Hou-Ni. The approach to a Hou-Ni village was generally marked by posts to which small bamboo pegs were suspended,—in one case a quartered cock transfixated by an arrow, in another a bow; all of which were supposed to avert evil spirits. The Hou-Nis of this district seemed of pure breed and pronounced type; the men muscular and dark, with straight noses, small chins, and an expression of much energy. They wore a loose dark blue jacket with silver buttons, and nearly all had on the left arm a copper bracelet of Chinese make. Their hair was plaited in a tail, and often covered by a horsehair cap. We had heard good reports of them as hardy but independent mountaineers, not very amenable to Chinese supremacy. The costume of the women was a black turban with folds falling behind or gathered in front into two horns, with a band across the forehead adorned with silver studs, sometimes with a cross in the centre, while others bore a disc of the same metal on the breast. A few had an over-garment with two lappets à la Robespierre. I had seen Yao women above Laïchau similarly dressed. We constantly met them on the road, with their baskets on their shoulders fastened to a sort of yoke on the neck to avoid chafing, and a forehead strap

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to take the weight. Whenever they saw us they turned their backs and plunged into the thicket.

At a distance these natives in their monochrome of blue-black presented a sombre appearance. We photographed a few Hou-Nis in one of their villages at Ba-kopo. They call themselves "Hou-Nia," but scarcely sound the "a." Their women are valued

at from sixteen to thirty-six taëls, and the rich have two wives. They inter their dead, and mark their mourning by a strip of white linen on the head. Their religion is the worship of ancestors. They rent the ground for tillage from the district of



Chinese Girl before her House.

Kai-hoa, but they have no other impost than this land tax. The Government gives them a Chinese chief, who resides at Koate; and they have also a headman of their own of less importance, to whom they give the title "tien-ni." Interrogated as to manuscripts, they replied that they had none of their own and knew no characters but Chinese. They had a musical instrument, a three-stringed guitar, from which they get a very soft tone.

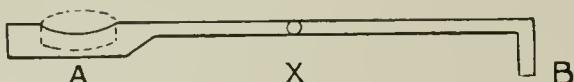
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On the 4th (March) we reached Fong-chen-lin, a small town, chiefly Chinese, perched on the top of a hill in the midst of fields of turnips, cabbage, and opium poppies. On our arrival we experienced difficulty in finding quarters. No one would take us in. The makotou and François were wrangling in altercation, and our mules, tied to each other, fell to indiscriminate kicking; while an inquisitive and jeering Chinese crowd pressed upon us. The natives held aloof, and it was only after long argument that we managed to house ourselves in a wretched inn where everybody was smoking opium. For our own part we preferred the stable and a straw-shed to the abomination of the common room. Briffaud, who had been on a tour of discovery, came back with the news that we were invited to dinner. We followed him across several courts to the "yamen." A fat mandarin received us, and forthwith made us share his repast; and an excellent meal it was. We were in the house of the "toussou" (chief). He plied us with questions, and pressed us to spend the next day with him, offering the inducement of a stag hunt. We regretted that time did not allow of our accepting his invitation. During the conversation I was struck by the humble attitude of Master François, who, insolent enough in his bearing towards us, did not know how to sufficiently abase himself in the presence of a superior of his own race.

We resumed our journey on the following day with a pleasant recollection of the chief of Fong-chen-lin, and above all of his "œufs farcis." He had agreeably varied our fare, which had consisted for some time of rice and fowl, fowl and rice, with only now and then pork and vegetables. We made cakes which served in fancy for bread; but in reality they were rice rolled into a paste and toasted.

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On our way I noted with curiosity the method employed by the natives to winnow the rice by hydraulic apparatus.



A beam of wood is pierced by a spindle at *X*, a trough is hollowed at *A*, and the extremity *B* is the pestle. A stream of water constantly fills the trough *A*, tipping the beam till the trough empties itself and the pestle *B* falls. The irrigation canals are much utilised to work these machines. Nam opened his mouth with astonishment at the inventive genius of the natives; the Annamites had never seen them before. I remarked to him that if this system were employed in his country the Annamite women would have more spare time, and their deluded husbands less peace, which he gravely admitted.

To-day's stage brought us to a market where great animation was manifested in the barter of iron-ore, vegetables, and oil carried in hollow bamboos, against sugar, silk, drugs, rock-salt retailed by the Chinese, and European articles. Of course there was the inevitable gamble of "bacouan"; and I was urged by a stout worthy to look through a peep-hole, which was nothing but a stereoscope surmounted by cymbals, and to try my luck. I respectfully declined. Here again we noticed among the natives yet another tribe, hitherto unmet with, whose characteristics were slight figures, pale complexion, nose straight and prominent, with thick lips and large straight-set eyes. Their costume too was peculiar. It consisted of a black tunic gathered in by a sash, and studded from top to bottom with a double row of metal buttons. Round the neck was fastened a collar similarly adorned, and on their heads they wore a large black turban

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over a small horsehair skull-cap. These people were very shy; I had much ado to photograph them; and on my proposing to buy a tunic, they fell on their knees and proffered me some sapecks, trying to force back into my hands a small hand-glass I had given them. I think they took us for gods. They said they were Lintindjous, but the Chinese called them Yaos. Rumour ascribed to them a writing of their own, of which we tried in vain to procure a specimen; their dialect at

any rate was totally different from any other. They had come to market with a dye for sale. The Lintindjou females displayed a small disc above the hair knot, which lent their turbans some resemblance to a papal tiara. In their ears were heavy double rings of silver.



A Yao.

On the 7th (March) we re-entered the valley

of the Red River, to the satisfaction of our men. There was much talk in camp of pirates on the heights. For my own part I believe they were only natives in revolt against the taxes, but our mafous showed no desire for chin-chin with them. Spying on the door of a house here some white hieroglyphics, I hastened to copy them, and flattered myself that I had made prize of a new script. But Sao damped my philological ardour by pronouncing the building to be a buffalo stable, and the

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characters nothing but rude representations of agricultural implements. I am inclined to believe he was right.

At a hamlet some furlongs from the river we called a halt for a day to rest our tired animals, one of which we had been compelled to abandon that morning. The dwellings in this place were white, with gabled roofs cemented with lime; and had it not been for the hideous red paper with which the doors were plastered, one might have believed oneself in an Arab country. As night fell, the mist that wrapped the opposite shore was cloven by the glare of a conflagration: a fiery serpent writhed on the hillside and coiled itself in the hollows, to rear a glowing head as it crept upwards to the summit. For hours I watched with awestruck admiration this spectacle of splendid devastation.

On the morrow we resumed our march by the zigzag course of the Song-Coï, which here varied in width from about fifty yards in the stream to three hundred yards in the bed. Houses were grouped in terraces upon the promontories, sometimes with verandahs, Thibetan fashion, with flat adjoining roofs, which afforded drying ground for the hay and means of communication for the inmates. The latter were Païs, or, to speak more generally, Laotians, clad in Chinese garb. Sao addressed some words to them in Laotian, and was understood. The whole of this part of the Red River valley showed traces of a bygone prosperity, and must have been ravaged by the Mussulman war.

The path at this point left the lower level, and climbed under craggy rocks to which clung the taper-like cactus, and by slopes where the sward lay like a fleece, over which one felt inclined to pass one's hand; when ruffled by the breeze its surface broke

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into a play of colours as of golden plush. From here I made an expedition with François to a neighbouring Lolo village, whose inhabitants steadfastly refused to be photographed, alleging that if they sat in front of the camera they would meet an early death. They could give us no information as to Lolo manuscripts, but said that farther on we should find many more of their kindred. Back to the valley again, where the Paï women were net-fishing in the rice swamps, or working in miniature market gardens. In one of their villages we sought shelter for the ensuing night in a house built on a low platform, with posts within blackened by the soot of ages. Here I ensconced myself on the landlord's bed—two planks on the bare ground; outside, our baggage was piled in a crescent, of which our men improvised two-storeyed accommodation. Having written up my notes, I tried to sleep; but the smoke, the stuffiness, the grunting pigs and clucking hens, prevented my closing an eye. At length I could stand it no longer, and took my blankets up on to the flat roof, where in the friendly society of a few rats I found a luxurious couch of hay. Below me, by the door, two men made plaintive melody on a three-stringed guitar, while a third, seated on the edge of the roof, threw in an occasional accompaniment. Near them, their mitre-shaped caps sharply profiled in the clear moonlight, crouched some women. The scene was quaint and foreign.

On the 11th (March) we were in the valley of another affluent, and limestone formations took the place of the diorite and mica-schist of the higher altitudes. The heat was great throughout the day, 98° Fahr. in the shade, but dry, and we stood it well enough. Fine specimens of the cotton or, as they are here called, pagoda trees spread their clusters of brilliant flowers;

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out of their thick glutinous calix the natives make a conserve. The rising ground brought us to a village in which again a new tribe, the Miaotses, presented itself, with inconsiderable dis-

tinguishing marks, chiefly in a loose jacket without buttons worn by the women. I could not here find any natives who understood Chinese, and was therefore unable to obtain precise information in their case.

After the Chinese, the natives of Yiunnan are divided into the Ijen, who are the subject Lolos, and the Mantzes, who are the free. The Ijen comprise the Hei-y, the Pa-y, the Pai-y, the Lolos, the Teoulous, the Cha-jen, the



Harrower, Miaotse Tribe.

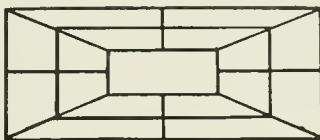
Noung-jen, the Poula, the Manjen, etc. Kouitchan is the parent district of the Yaos and the Miao, who are sometimes met with in Yünnan.

FROM MONGTSE TO SSUMAO

The Miaos or Miaotses (who do not speak Chinese) have four family names: Tien, Lo, Tch'eng, and Ts'ai. They are divided into—

Koua Miao	dress, various.
Paï Miao	,, yellow.
Hei Miao	,, blue-black.
H'ing Miao.	

On leaving the Miaotse village, we noticed at the foot of a large tree a white marble trough surmounted by a Chinese inscription, and below it two horizontal marble slabs, on one of which the following figure was engraved :—



Descending again to the level of the Song-Coï, we entered upon scenery of unforeseen beauty. The road wound beneath a wooded hillock, where the breeze that stirred the branches wafted a faint fragrance of vanilla, not unlike the sweet scent of the joss-sticks of Thibet, and the grove was bright with large white blooms, either pendent or strewn upon the ground like snowflakes. A little farther it dipped into cool hollows filled with slender reeds or the waving boughs of the mimosa and the tamarind. Coming from the rocky desolation of the river-bed, the sensation was like that of Aladdin when he emerged into the Wonderful Garden after threading long labyrinths of dreary caves. In the heart of this little paradise nestled a Paï hamlet; by which for the night we pitched our tent, and watched the moon rise almost red through the boles of the trees, as in

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some remembered scene in Japan. Then to sleep : with only the chirp of the cricket and the "takkō-kō-kō" of the lizards round us.

Two more stages and we should arrive at Isa ; the road became more frequented, as was shown by stone water-troughs for the caravans under little wayside shelters. We met strings of mules laden with salt, and other merchandise is taken down the river in small 16-feet boats, which descend in convoys. At the rapids the flotilla stops, the crews take to the water, and pass each cargo through in turn.

Our rate of progress was slow, for the animals were tired. One of the mules being hardly able to stagger on, the makotou bled it from the tongue, and burnt a rag under its nose, which caused a discharge from its nostrils; he then made the animal inhale some powdered pimento placed on glowing charcoal, and finally forced it to swallow a black drug called kouizen. After which attentions the mule revived sufficiently to proceed.

In the afternoon of the 13th (March) we came in sight of Isa. I have seen few things more cheerful than the aspect of this little town. Crowning the hills and set in the verdure of the valleys, it enclosed its tiers of white-roofed houses within walls which the bamboo and larger trees chequered with their shadows in the sunlight. Beneath it, in the plain, ran the river ; on the right bank, rice-fields dotted with villages ; on the left, the range that we now forsook, which reared its bare crags as a background to the richness of this little oasis.

It was opposite Isa that Garnier descended. The town contains some thousands of inhabitants, and has a brisk trade. Salt comes from Mohei (near Pou-eul-Fou), sugar from Tong-hai, tobacco from Canton through Manhao, and other goods from

Woodland Path.



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Yuenkiang. They told us, also, of an ancient copper mine in the river valley, now disused.

We had the luck to fail in our quest of an inn, so camped in the midst of the tombs on a mound topped by a polygonal stone kiosk, which now contained nothing but a few joss-sticks: it made us a good kitchen. The populace was almost exclusively Chinese, and the gapers were as numerous as usual in that race. A few of them, however, betook themselves from contemplation of us to flying kites, which rose to a great height, and produced a strange humming through a tube tied to the tail. In the same way, the Chinese have a habit of fastening a musical pipe under the tail-feathers of their pigeons. All these loafing fellows were a nuisance, though not hostile as at Setchuen. They did not resent our scattering them, but settled again immediately like flies.

From Isa to Ta-lan was said to be eight stages, at the fifth of which we should rejoin the highway from Yuenkiang, unless a short cut should allow of our avoiding the known routes.

Having, therefore, replenished our commissariat and disappointed the wily François, who sought to inveigle us into staying by the tale of a wondrous dragon with a jewel in its head, that we might undoubtedly capture in the vicinity, we set forward on the following day, and, leaving the main road on our right, bade farewell to the river valley, and directed our course to the west. I preceded the main body with Sao, but, owing to the native ignorance of Chinese, our inquiries as to the route met with the invariable response of "Ma chai" ("I can't say"). Eventually, a Chinese innkeeper put us right, and we reached our intended halting-place, a village called Souto. The people were Lolos again, and while waiting for the rest of the party I conversed

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with them by signs, showed them my field-glasses, and asked for manuscripts. They indicated that they had none. François was of no help to me in these researches, as he ignored the existence of Lolo writings, and regarded my efforts as a harmless eccentricity. According to him, the Houé-dzeu alone, the abstainers from pig, had other characters than the Chinese.

While thus engaged with the villagers the day declined, and still no caravan. We decided to retrace our steps, but night overtook us at the entrance to a wood. It seemed more prudent to stop, as we had before us a solitary dwelling where earlier in the day we had asked the way. Accordingly we knocked, but, getting no answer save the barking of a dog, I pushed open the gate and entered the courtyard. A shrivelled beldame accosted us, and in trembling accents conjured us to go away, repeating incessantly the familiar phrase, "Ma chai." As it was black as pitch outside, I bade Sao pacify the old woman, which he proceeded to do by patting her on the shoulder and pouring out a string of Chinese and Laotian patois. The dialogue had been begun by the light of a match which I struck; I now lit a wisp of straw, which the hag no sooner saw than, thinking we were going to burn down her hovel, she trampled on it with her bare feet in great alarm. At this juncture a ragged old man appeared on the scene. He had more wits than the grandam, and presently the matter seemed in a fair way of settlement. An oil lamp was produced, some straw shaken down for our beds, and we unsaddled the horses and laid aside our arms. Meanwhile disquieting shouts were heard without, accompanied by dropping shots from the direction of the village. "Pou pa" ("don't fear"), said the man; but I was far from feeling reassured; and as the tumult increased I stepped out into the yard, making signs at the same time that

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he should sally forth and interview the rioters. A long silence showed that a parley was being held. I took my stand in the court with Sao, who did not lose his *sang froid*. Of a sudden, about a dozen men burst in armed with guns, 12-feet lances, swords, and tridents. The Hou-Nis (for as such I at once recognised them) were led by a man brandishing a torch, and from their threatening gestures seemed about to fall on; their pieces were at the shoulder and their fingers uncomfortably close to the triggers. I had slipped

my revolver into my pocket and loaded my gun, determined not to sell my skin for nothing; though, caught in a trap as we were, we were pretty sure of our quietus if they attacked. In this crisis Sao surprised me by his cool courage for an Anna-mite. Knowing that,

bad as his Chinese was, it would come better from an Asiatic than my gibberish, I left the speaking to him. Our old emissary had by this time prudently made himself scarce. In rough tones the leader of the band invited me to begone. This was not our intention, so we replied by making signs that we were hungry, and to show a firm front began to sweep a space in the court for a fire. Then Sao had an inspiration. Although he could not speak Chinese, he could write it. The yard served as a spacious slate, and he forthwith



A Hou-Ni.

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proceeded to describe our situation with his finger in the sand. As soon as one phrase was comprehended, he rubbed it out and traced another. The Hou-Ni chief then made answer by the same medium, with the help of a word or two of Laotian. The position which a moment before had looked ugly was altered,—each had taken the other for robbers. Our wild gang now was tamed, and for a small sum of money brought us eggs and rice and straw mattresses. Still they seemed reluctant to leave us, and four or five hung about our sleeping quarters with their arms in their hands, casting covetous eyes on my gun. The one who had appeared their head observing me taking notes, asked me, through Sao, to write some words for him to hang up at the foot of an image in his house. At length they withdrew, and, worn out with fatigue, I slept. At daylight we felt very glad to be once more in the saddle; the overnight scene of the courtyard filled with savage faces lit up by the torchlight had left a sufficiently vivid impression. But for my Annamite's presence of mind anything might have happened; the least hesitation would have lost us our lives.

We found our troop installed in a pagoda in the village of Souto-tia. The monthly feast of Buddha was in progress. Women were on their knees with clasped hands before the figure of a fat god; its features wore an expression of perfect bestiality, and in one hand was placed a garland, in the other a scroll. The worshippers accompanied their chant with bells or sticks, and from time to time prostrated themselves in front of the altars, on which were burning perfumes, bowls of rice, tamarind seeds, and other offerings. In Souto I at last succeeded in laying hands on two Lolo manuscripts, in exchange for some money, a looking-glass, and a pair of scissors.

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We resumed our march in company with five Chinese on horseback, and twenty men on foot armed with matchlocks, spears, and tridents, who formed the escort of a minor mandarin on his way to chastise some Hou-Ni rebels. The natives hereabouts had a reputation for lawlessness; most of them carried weapons and employed their spare time in brigandage, of which spirit we had evidence at a village from which the inhabitants issued and with angry menaces forbade us entry.

The landscape began to change. We had left the region of rice-fields for confused mountains covered with brake and brushwood, and were approaching the divergence of the Red and Black Rivers. At Ta-yang-ka the headman told us of a path followed by caravans coming from Ibang, which passed through Muong-le without rejoining the main Ta-lan road. We decided to take it, and this time our men obeyed without much demur. They began to recognise our determination, of which they had received a fresh proof. Up to this point the makotou had paid the mafous, deducting half a taël for food from the seven taëls per man which he drew from us. We now learned that the rogue had been in the habit of handing his subordinates only five taëls. Upon their complaint, I promised for the future to pay them direct.

To the men originally engaged at Mongtse we had now and then, as occasion served, added another as guide. A young Lolo, who at this time was acting in that capacity, proved intelligent, and furnished me with some facts regarding the Païs. By his account they are divided into four sorts—

- (1) The *Chui-Païs*; distinguishing mark, black trousers and blue vest in the women.
- (2) The *Kin-Païs*; hair twisted into a knot like a horn, sleeve-cuffs gathered in at wrists.

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(3) The *Pé-Pais*, or White Pais; women—black trousers, white vest.

(4) The *He-Pais*, or Black Pais; women wear skirt instead of trousers, and a waistcoat; men in dark blue.

He averred that the Hou-Nis had no writing like the Lolos. They reckon numbers by means of parallel lines; thus, 1, 2, 3, 4, etc., and are only conversant with two characters, signifying 100 and 200 respectively. But the Hou-Nis and the Lolos understand each other in speech, indeed their vocables revealed many similarities of sound. This particular guide styled himself a Heï-Lolo; farther west are found the Pé-Lolos. The Miaotses, too, have a writing. It is well known that M. Devéria found, in a published Chinese work, a page the characters of which were ascribed to the Miaotses. We met women here clad only in a sort of bathing costume, with a loose open vest. Their hair was parted behind, and drawn forward in two bands to form a top-knot, protected with a copper sheath. They were said to belong to the Heï-Hou-Nis. I remembered a like head-dress among the independent Lolos of Setchuen, whom the missionaries called "Licornes."

Beyond Ta-yang-ka we were enveloped in a Scotch mist, with the thermometer down to 46° Fahr. The Chinese who paid us a visit carried a small basket containing an earthen vessel filled with hot charcoal. Some of them concealed this Sybaritic warming-pan under their garments, and looked as if they were deformed. At Lou-tchou we bore away pleasant recollections of the hospitality of the chief, who insisted on killing a pig in our honour, and gave me a jade cup as a souvenir. I also acquired copious information, costumes, and some manuscripts.

The chief was a toussou in command of a hundred men, nomi-

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nated by the Chinese mandarin at Yuenkiang, and dependent for his pay on farming the taxes of the district. In the dialect of this part the Lolos are called Nesous—a name met with by the traveller Bourne in other parts of Yünnan and Setchuen, and by ourselves much farther on. Hence Nesou should be taken as a subdivision of the general designation Lolo among the peoples of China. These Nesous were established about five hundred years ago, under Ming-Ia (at the end of the Ming dynasty), from Tiang-Neu (Nang-king). This coming of the Lolos from the East was confirmed to us later. On the other hand, we met with universal testimony that when they first came to Yünnan they found the Hou-Nis already settled there. Nowhere did I hear any other place of origin assigned to the latter than Yünnan. Wishing to affirm that they were the aborigines of Yünnan, the toussou told me that the Hou-Nis had been in this province for over three thousand years. He divided them into—

Heï-Hou-Nis,
Dé-Hou-Nis,
Lami-Hou-Nis,
Bana-Hou-Nis,

the last two not being found in this region. Polygamy is prevalent among the Lolos, but divorce is not admitted. The custom noted by Rocher, according to which the married woman quits her husband for several months after first cohabitation, was not in force here. Marriage is solemnised by drums and trumpets and killing of fowls, but there is no religious ceremony. Particulars as to creeds were always hard to obtain, especially with a bad interpreter like ours. But I gathered that the Lolos believed in spirits, in one more powerful than all, in heaven and hell, and in the existence and transmigration of

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souls. They have books of prayer; and though they do not build temples, they erect little bamboo altars in the woods. They sing and dance, and the dates of their feasts are generally marked in the Chinese calendar. The climate of this part is cold in winter, ice even being seen in December. Deer and

small game abound in the mountains, which, as far as the inhabitants knew, have no mines.

The female costumes which we bought deserve mention, being peculiar for a long sort of cassock with red sleeves, the corsage worked with handsome arabesques in black, white, and red, disclosing, when open, a small embroidered vest.

It is from these

varied hues that the Lolos probably derive the name Koua-Lolos (Lolos of colour). The throat was encircled by a band with a silver clasp, and the head by a turban, the ends of which were brought round in front and ornamented with silver studs, while large ear-rings of the same metal completed the



Lolo Woman.

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whole. Manuscripts were plentiful at Lou-tchou, and they brought me some very fine illuminated ones. The characters are still in use, employed in property contracts in duplicate with Chinese. A more learned native than most agreed to make a translation for me, and said the Lolo caligraphy contained three hundred letters and signs, and was read from the top of the page to the bottom, and from left to right.

We quitted Lou-tchou in thick fog by a route following for the most part the crests of the hills through low woods, where red and white rhododendrons alternated. Primitive bee-hives furnished us with welcome honey in hollow trunks stopped with clay and bored through the middle. The route being fairly frequented, we met quantities of tea and cotton, the former sometimes wrapped in bamboo leaves; most of the muleteers were armed with tridents, and as the caravans travelled in large convoys their appearance was sufficient to overawe robbers. Despite the bad weather, our men kept up well. François, draped in a long blue cloak, under a round grey hat, looked from behind like a town-clock; on the march he sat his pony like a statue, mute and erect; only after dinner was his tongue loosed, and he would condescend to interrogate the natives.

Among our mafous was one, a lad of twelve, accompanying his father, whose frank expression and cheery "cheulo" ("all right") quite gained our hearts; even when he rapped out the customary "malépi," the imprecation seemed to lose half its ugliness. It was deplorable to think that this boy was doomed to so short a childhood, and that ere long he would inevitably become a confirmed opium-smoker, and acquire with their passions all the corruption of his elders. Among the Hou-Ni villages around the greatest squalor prevailed, and the wretched inhabitants lived in constant

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terror of tigers, which even invaded their hovels, and had recently carried off two men: we ourselves met many traces of these animals for several days. Our surroundings, however, improved by the 19th (March), when we were on the descent into the valley of the La-niou-ho, an affluent of the Lysiang-kiang, or Black River; within five miles of which gold was said to be found. The fog

cleared off; instead of forest, we had rice or poppy fields, terraced villages amid Indian fig-trees festooned with gigantic creepers or covered with hairy orchids, and open tracts of moss-grown rocks and fern. The air was scented with orange blossom and alive with æthyopiga of brilliant hue: through such scenery, typical of Upper Tonkin, we made the stage to Ngapa. One could not but be struck with the degradation of the women of this district: with scarcely a rag to cover them, they were here, as in Thibet, little better

than beasts of burden, the hewers of wood and drawers of water.

A cotton caravan met us here, coming from a region beyond the tea plantations, eighteen days distant. The cotton is bought at eight taëls the pecul,¹ and sold for fourteen. This commodity might with advantage be sent by us from Tonkin.

¹ Pecul=about 133 lbs.



Woman at Ngapa.

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The dampness of the climate caused Briffaud a slight attack of fever, and we had no desire to stay in the neighbourhood; but one morning, as we were about to make an early start, we discovered that a case containing provisions and a cape of mine was missing. We had passed the night in a solitary hut, whose



Feeding the Prisoner.

only tenants were four natives. As neither threats nor careful search revealed the box, we resolved on drastic measures, and proceeded to make two of them captives, to be carried off as hostages. Accordingly their hands were tied behind their backs, without a sign of opposition on their parts. The one female in

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the hovel fed them before their departure, and nothing more comic can be conceived than to see this brace of goitred imbeciles on their knees receiving beakfuls of food from their nurse. This done, the column set forward.

Wild camellias abounded by the way, and with the change of flora I observed also new fauna, scarlet paroquets and birds of turquoise blue. Plants and insects were of no less brilliance, and it was interesting to note the law of adaptation and protective colour that everywhere exists. Our quadrupeds were jaded: my own horse, skittish enough at the start, was now dead beat; every few yards he stopped, and could hardly be induced to move although I dismounted and endeavoured to drag him forward. There was still one more hill before us; this time he could not breast it. Down he went. Outstretched limbs and glazing eye showed all was over. Often as I had had to lose other animals, it cost me a pang to leave behind this good servant, whose final struggles had not quite availed to land him at the stage's end.

Dinner over, I examined our prisoners. Miserable tattered objects they were: one maimed and embellished with a huge goitre like the pouch of a pelican; the other halt and with his eyes bulging out of his head. They might have been fugitives from the Court of Miracles, fit to figure in one of Victor Hugo's dramas. Just now, having had a meal and a smoke, they were helping our mafous, who promptly seized so rare a chance of getting their work done for them. As it rained heavily and a rest was imperative for the mules, we decided on a stoppage for a day. The captives were released,—of course, without the recovery of the box,—and they went their way home quite contented. They had been well treated, and for very little would

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have stayed with us of their own choice. The goitred one even gave us guttural thanks, prefacing every word with a sort of bellow.

Again we were in the vicinity of Lolos; and by showing those that we had already, made purchase of more manuscripts. I was promised one upon linen, which would have been valuable as older than the others, but, unhappily, this I never got. Sao saw in a house a belt made of the skin of a tiger, cut off the chest from paw to paw, leaving one claw on each. Such a waistband, the Annamites say, is a good preventive to stomach ills, and the Lolos attach the same efficacy to it. These tribesmen were still of the Koua Lolos. They came in a century ago from Chiping on the Yünnan-Sen side, and maintained a worship of the Péti (Deity). Their garments were of home-made cotton, stained with a blue dye from Lotsen. From them we heard of "black dogs" in the neighbouring mountains that climbed trees: query, bears?

On the 22nd (March) we came to the right brink of a rushing torrent called the La-niou-ho, which was pronounced impassable by the guide, who found the water up to his neck at the ford. The sight of a collection of armed villagers on the far side did not serve to encourage our men, and the makotou was for staying where we were till the waters should decrease. As I saw no reason for expecting this, but rather the reverse, Roux and I put our animals at it, and got over with some difficulty. The mules were then dragged through by strings of five at a time, the men keeping on their lee side to push their heads up stream. Only one broke adrift and was swept down a rapid which was below: we hardly thought to recover him, but being without his load he came through somehow, and at the end of three-quarters of an hour we all mustered safe on the left

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bank. I kept the photographic materials dry by taking them on my head; and Nam, who loved not horseback, did the same for the collecting gun by holding it at arm's-length above his head. Thus Camoëns swam with the "Lusiad" in his hand; only our cook was not a poet, and thought most of his pipe and his pot, after his own skin.

We slept that and several succeeding nights among some Hou-Nis, tormented by legions of fleas that recalled Madagascar. The inhabitants were uniformly hospitable, and this tribe pronounced themselves in their own dialect Han. The women had their lower teeth stained with a scarlet dye made from a tree called sena. There were no musical instruments nor writing amongst them, they did not dance, and they prayed to a superior being whom they called Ponkhu, and to whom they erected small bamboo altars. In proportion as we neared the Black River the country became more cheerful, with a formation of sandstone or slaty schist. The hills were clothed with tufts of feathery bamboos or deeper groves of fig-trees, with roots exposed like feelers of a giant polypus, and with a species of palm the head of which expanded in a sheaf of wind-tossed dark green leaves less formal than ordinary. Other trees, again, were laden with violet-tinted, sweet-smelling blossoms, which almost hid their stems.

We should have enjoyed this part more had it not been for renewed trouble with our mafous. They were slack, and we had to hurry them up, with the result that three, including the little urchin and his father, deserted. Their defection had a bad effect on the others, and we were constrained to lessen their baggage duties, and to talk freely of the gratuity with which those that remained loyal would be able to make merry when we got to Ssumao. That haven of delight was not now very far distant, and they would be

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singularly short-sighted to forego such a chance for want of a final effort. The majority of them saw it in this light, and held on.



Hatous.

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The Hatous were the next new folk amongst whom we found ourselves. They resembled the Hou-Nis in their sombre dress, but, in addition to the usual silver ornaments, the women wore cowries or pearls pendent from large ear-rings, which were linked by a light chain under the chin. They were all very partial to tobacco, which they smoked in small wooden pipes with silver chains; one stalwart old woman offered me three eggs for a pinch of it: her upright carriage, with the energetic expression of her bronzed and wrinkled face and restless eyes beneath her turban, gave her a mien of barbaric wildness that suggested something almost uncanny behind the mask. These Hatous, whose speech was akin to that of the Hou-Nis, came here twenty-nine years ago from Ouang-Tchang (near Xieng-houng), a small town not far from Tali, and regretted their migration, which they would gladly retrace had they the means. They had no priests, but worshipped the deities of sky, earth, house, and mountain, as well as ancestors up to the third generation, and they disbelieved in evil spirits.

The mountains harboured here wild boar, deer, roebuck, porcupines, and tigers. The black panther is also to be found. I bought a skin from two men, who called it hélaofu (black tiger), and held that it was the latter and no panther. However this may be, I believe this is the first occasion when this colour has been cited in these regions.

We reached the left bank of the Black River on the 26th (March), and found a volume of turgid water rolling down, in breadth about eighty-seven yards, between wooded hills of less height than those which confine the Song-Coï. Its colour contrasted with the clear torrent we had lately been following, but by the time it reaches Tonkin it has lost its reddish tint. The Black River, known here as the Lysiang-Kiang, higher as the Papien, and lower as the Song-



Passage of the Lysang-Kiang, or Black River.

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Bo, passes, in less than a week's journey below where we stood, Muong-le (Lai-chau). The natives talked of Tonkin, to the dispiriting of Sao, who imagined that by embarking here on a raft we might be back there in a week. Nam, too, whose geographical knowledge was of the vaguest, and placed Saigon close by, thought he must be near home. They both wondered where in the world we were taking them, and what possible object we could have in wandering about such uninviting and monotonous countries.

The passage of the river was easily accomplished by relays in a long pirogue, only two of the beasts requiring to be towed over, and the rest beginning quite to take to swimming.

In leaving the Black River I too threw a regretful glance behind me, like my Annamites, though my motive was not theirs. The knowledge of the life of a part of India, of Central Asia, embracing several hundred million beings, was becoming intelligible to my perception. For the moment I yielded to the witchery of Nirvana. . . .

But at night we were rudely recalled to the realities of life by an unforeseen peril. Under the pretext that tigers were in the vicinity, our men set a light to the brushwood round our hut. It was too late to check them, and presently we were walled in with a ring-fence of roaring flame, which, if it saved us candles to write by, also only missed the destruction of our persons and property by the providential absence of the least wind.

We reached Muong-le on the 28th (March); the later stages having been performed over a paved and widened road through a pretty country positively homelike in its foliage and grassy slopes. One might almost have imagined oneself in some corner of France, until by a turn of the path one came upon a mud-walled village with yellow roofs in a clearing of cane-brake and

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palm grove. Down on the level the sun struck bright on the streams that watered the rice-fields and bananas, and the butterflies and birds of gaudy hues reminded us that we were not in northern latitudes. Muong-le proved to be a small town of less importance than Isa, wholly Chinese, and built on a slight hill in the centre of a plain, with the usual characteristics of wood or plastered houses. We found good quarters in a sufficiently clean granary belonging to an inn. The inhabitants lost no time in telling us that two Frenchmen had been here only a few months before, coming from Laï-chau. It was not difficult from their description to identify one of these as Pavie, even had they not held his name in remembrance; the other was mentioned as wearing epaulettes, and was known to the Chinese as Ma. Here, as everywhere in my travels where I crossed his track, I was struck by the admirable impression Pavie had left on the people with whom he came in contact. The French cause in Indo-China has reason to be grateful to this pioneer for the esteem in which the name of France is held. It was always a matter of regret to me that I did not meet his expedition, to shake hands with fellow-workers in our common aim. We congratulated ourselves on the intersection of our respective routes, however, so that each in his research would fill in many blanks on the map of the region extending from the Chinese Song-Coï to the Mekong.

During our thirty-six hours' stay at Muong-le our relations with the inhabitants and the mandarin were excellent. We exchanged visits of courtesy and presents with the military commandant, "litajen." Nor did the crowd incommoded us as at Isa. As the 29th was market-day we were able to gain much insight into the trade of the district. Skins of panthers, at one taël apiece, were common, also of the wild cat and ant-eater. I

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noticed at a druggist's the head of a two-horned rhinoceros, which had been killed four miles from here. The chief native industry is a black cotton stuff, of which quantities hung before the houses to dry. Other cotton is brought from Xieng-houng, and retailed at thirteen taëls the pecul; salt from Makai; sugar in round sticks from the neighbourhood, where the cane is cultivated, and sold at twenty-four sapecks the Chinese kilo.

The European articles of import are English needles, coloured silks from Yünnan-Sen, and French metal buttons from Canton. The natives also sell minute cherries, a species of freshwater shell-fish, tea of the district in small cylinders, rice, joss-sticks, tobacco from the adjacent country in twist and in leaf, the tender sprouts of the bamboo maize and ginger as delicacies, and vegetables. I also saw chintz from Chu-ping, wooden combs, pipe-stems, and flints. Little opium is to be seen in the outskirts of the place; it is introduced in large quantities from Xieng-houng or Mien-ling. It is not easy to gauge the caravan traffic, but from what I heard I should estimate it to average about five hundred mules a month, except in the three rainy ones.

We were off again on the morning of the 30th (March). The rest was useful and necessary, but emphasised the undesirability of staying in towns by an episode among our mafous that might have turned to drama, and clearly instanced the Chinese character. The evening before we started the makotou discovered the loss of a packet of money from the chest in which he had placed it. Suspicion fell on a mafou called Manhao, who had hitherto given no cause for dissatisfaction. Forthwith the makotou, without reference to us, warning, or proof, mustered the other mafous, and with their help bound the suspect tightly to a post. In this position they left the poor devil for the night,

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despite his protestations and howls. And among all his fellows who for a whole month had travelled with him, eaten with him, and toiled with him, there was not one who would lift a finger against this injustice. They are a cowardly and cruel set, this yellow race, always ready in their cold selfishness to combine against the weak, and each satisfied if by finding a scapegoat he can secure himself. La Rochefoucauld ought to have written his maxims for the Chinese; he would never have been in error. In the early morning Manhao came with lamentations to us, showing his swollen arms. I have little doubt he was as bad as the rest, and would have acted himself in a precisely similar fashion had the occasion offered; but for the moment he was the plaintiff, and our investigations only established the fact that there was absolutely no evidence against him. After having angrily reprimanded the makotou, to his intense astonishment, we required him to take care of the accused. The epilogue to this little drama was to disclose itself a few days later.

The two first stages after leaving Muong-le were particularly uninteresting, at the foot of the hills rice, and on the flanks villages, thatched and unclean. We slept among Païs who had nothing original. The only incident of the march was a kick which one of the mules obligingly lent me in the face. I escaped with a grazed eyebrow, but it might have been different. It was not without envy that we saw buffaloes driven into the villages at nightfall; but we could neither make acquaintance with their flesh nor with the milk of the cows: ever the eternal rice and eggs, fowls, and occasional pork. On the 1st April, in the afternoon, we had made our customary halt for a bite and a rest, when just as we were about to resume, a tremendous storm, which had lowered for some time in the hills, burst over us. Lightning, thunder, wind, rain, hail,—

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big guns and mitrailleuses,—nothing was lacking; the hailstones were as large as pigeons' eggs. Most curious was the aspect of the caravan, as, cloaked in my ample waterproof with my shoulders stooped to the deluge and my sight half obscured beneath my hat brim, I endeavoured to take in my surroundings. With ears laid back and tails between their legs the animals scattered, driven by the blast and lashed by the hail, the men running hither and thither in vain effort to collect them. Others of the mafous cowered beneath their blankets, without which, in sober earnest, the hail would have been dangerous. I felt the stones rattle round my ears, and saw naked limbs receiving a far more lively impress of their sting. Soon the faces of the men began to show long lines of red like bleeding scars, the dye was running from inside their caps in streaks upon their visages. As for our two Annamites, bewilderment possessed them, the phenomenon was altogether unfamiliar; they tried one or two of the hailstones with their tongues, and then, as the projectiles grew bigger and the wind increased, surrendered themselves to rigid immobility, like capuchins beneath their cowls.

The tempest ceased as suddenly as it began. The scared sun looked forth, and turned the hailstones into iridescent gems, or walnuts sparkling with crystals. "What a pity," soliloquised Nam, "that one cannot preserve them!"

Within a quarter of an hour the little stream that before had trickled was a roaring torrent, and we recognised that this route must be impracticable in the rains. The surface became soft and treacherous, and we had to wade through pools widening over oozy ground in which the animals sank to their girths. Each instant saw a load upset into the mud; the men scarce knew when to give the mules their heads, and, to crown all, the path became so narrow that they had to prick them from behind to make them move forward with

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their burdens. Amid these difficulties François suffered most. He urged his pony at the mire, and promptly tumbled into the river. Knowing full well he would get no sympathy from us, he bore him-

self with offended dignity, much enhanced by the lamentable state of his once showy velvet boots, and gravely climbing on to his little grey was presently trotting ahead in search of a camping ground. We succeeded at length, without much knowing how, in reaching an insignificant Chinese village, where two scanty rooms were grudgingly assigned us after prepayment. However, a proper bath soon made amends for the April fool's washing we had already undergone.



As the rain was over I sallied out to investigate, and hard by came to a large tree in a hollow, with a small altar at its foot. The platform was supported by uprights and cross pieces, and at its sides were arranged some peeled wands, with a bamboo trellis

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against the trunk ; the whole structure being thoroughly Laotian. As I surveyed this mark of reverence to some woodland deity, my thoughts reverted to a like worship paid by our ancestors, the Gauls, to the genii of the forests. It is not one of the least interesting studies of the traveller to trace thus among the savage races of to-day the past history of people now advanced in civilisation. By self-same paths our forefathers set out. Here, separated by thousands of years and hundreds of leagues, one could detect a common starting-point for races of mankind dissimilar in manners as in feature. Might we not look to find as we journeyed westward away from China proper and penetrated the abodes of men still more remote from the fringe of civilisation,—just as in the islands north of Japan or in the higher latitudes of Siberia,—habits and scenes from the iron epoch, nay, even from the age of stone . . . ?

A tedious gradual ascent and the crossing of a spur led us on the 2nd (April) to the edge of the basin of the Mekong River. A deep valley lay at our feet, but in the swathing mist it seemed to our eyes one vast void. Our men showed an inclination to stop short at a village on the pretext that there was not another for twenty miles, but we made them proceed : a roof of stars was preferable to a grimy shelf. It was not until 6.30 p.m. that we came in touch of water, and by it pitched our tent. Later, Briffaud and the "Doctor," as Roux had been dubbed at Tonkin, employed themselves by the light of an opium lamp, which we used to economise candles, in working out our longitude by an observation of the moon and Jupiter. We had to-day accomplished three hundred and twelve miles of exploration. We could not have guessed at Manhao that we should reach Ssumao by an entirely new route. Our journey had thus had unforeseen development.

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and by continuing in the same way we might hope to accomplish good results.

All the next day we were descending into the valley, the base of which could be seen to be cultivated with rice and tobacco by Païs. In the evening (3rd April) we celebrated the five-hundredth kilometre by a great feast, washed down by Sparkling Rivulet



Halt of our Men.

and Old Crusted Pump, and crowned by coffee and cigars. A grand concert concluded the proceedings, and we felt almost like home. Before turning in we had a long moonlight chat; plans were discussed, maps brought out, and books consulted; our imagination spanned valleys and overleaped mountains in the Far West of our hopes; and lest we should lose the least portion of our airy dreams, sleep stole upon us as we talked.

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Upon the 4th (April) we crossed the river, successfully accomplished, and enlivened by a difference between Chantzeu (Roux's man) and his steed, which ended in the quadruped having the last word. Chantzeu led off by selecting the deepest spot in the stream; the horse, after nearly losing its footing, refused the opposite bank, and bore its rider back to the starting-point. Again they crossed, and again fell out; this time Chantzeu came off in mid-stream, and got a most desirable ducking. But his blood was now up, and he started to drag his recalcitrant mount behind him. It was no good: neither blows nor kicks nor a litany of "malépis" availed; and it was only by the intervention of the others that the unvanquished combatants, a queer conglomerate of two creatures,—I had almost said beasts,—with but half a brain between them, were towed across together on the same bridle.

We breakfasted in the midst of a charming landscape. Pine-clad hills stood round in a semicircle, with villages clinging to their curves. On the mound where we were a grove protected a hut, within which was an altar built of three upright stones upon a bank of earth. Feathers of fowls, and bamboo tubes containing half-burnt joss-sticks, were stuck before it, relics of a former sacrifice. This little temple was probably the common property of the several hamlets in sight. The situation was a fine one, and as much by its position as by its surroundings reminded me of the locality in the outskirts of Huë, where may be seen the wonderful tombs of the Emperors of Annam. This pleasant scenery continued on the morrow; the mountains, bare on their eastern, were wooded on their western slopes, with a stunted growth of gnarled trees, like oak and chestnut, on the heights, and a ranker, semi-tropical vegetation of curtained creepers in the torrent beds below. We rested for the night in Po-tso, an attractive place, where the

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buildings were new and cleanly. The chief industry of its Chinese occupants was the making of the spirit called "tchaotiou" of rice or barley, so that a mild exhilaration soon displayed itself among our men. In rear of the village was a clearing, planted with cabbage, lettuce, turnips, fennel, and pumpkins, the soil in many cases being propped by horizontal tree trunks or hollow bamboo stems, which also served as aqueducts. The side walks were shaded by palms, pomegranates, bananas, and orange-trees, carefully tended. The Chinese certainly are first-rate market-gardeners.

On the 6th (April) Ssumao was reported as only twenty-four miles distant. I therefore sent on François and the makotou, nothing loth, to secure quarters. Our mafous were ready to be off by 8.15 a.m.,—a treat to behold,—mules saddled, packs corded, and no useless palaver; our rôles were reversed,—it was they who hurried us now. One day more, and then pay, brandy, opium, and leisure to enjoy their dissipation. From the number of basket-laden peasants we met in the course of our approach to the town, it must have been market-day; buffaloes there were, too, swinging wooden bells with outside clappers like those in Laos. The region here seemed to be warmer, and, besides the commoner rice and scented white rhododendron, aloes reappeared, which we had not seen since our entry into the province of Yünnan.

At a turn of the road Ssumao came in sight. Instinctively we drew a deep breath as we saw stretched before us a wide plain, such as we last looked on at Mongtse, in the centre of which the town rose on a gentle acclivity. A haze hung over it, through which an indistinct impression was received of white walls, grey roofs, and darker verdure, with detached pagodas amid groves of large trees upon the summit. Between us and the town lay spread

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the accustomed graveyard, with little mounds like molehills, and here and there a single column; not, as in the capital, a forest of upright stones. We followed a path through level rice-fields and narrow dikes, and presently arrived at our rest-house in the suburbs.

CHAPTER III

SSUMAO TO TALI

Stay at Ssumao—Civility of the Mandarin—Troubles with our Men—We start for the West—Mules Stolen—Among the Païs—The Mekong—The Lochais—Dayakeu—Theft of Roux's Baggage—Disappearance of Nam—Lolo Dances—Roux's Digression on the Mekong Right Bank—Crossing of the Sé-kiang—The Pou Mas—Linguen, a Pretty Valley—Near the Salwen Basin—Stop at Mienning—Ruse of our Followers—The Makotou Stabbed—Chinese Character—Mong-Ma—Dismissal of François—A Mutiny Averted—Yünchou—Elephants—Chunning-Fou—Bridge over the Mekong—Valley of the Yang-pi—Plain of Mêng-hua-ting—Lake of Tali (Er'hai)—Arrival at Tali-Fou.

WE remained at Ssumao four days, undergoing rather than enjoying a well-earned rest for man and beast, in about as indifferent a lodging as was possible. It was a kind of caravanserai composed of a series of courts round a centre block containing a number of cells all on the ground floor. The first night I occupied a corner one, the walls of which were literally crenelated by rats, who performed such a saraband and squeaking concert over and around my body that I was fairly driven to take refuge with Roux, who had only a few rovers, and those of more respectful manners. Yet this was the best hostelry in the town; and, by a curious coincidence, two other Europeans had, we were told, only left it the day previous. These were a couple of Englishmen, one an officer: from all the information we could gather they seemed to have travelled from Burmah, and to be returning as

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they had come, by Puchi Fou and Tali. This news relieved us greatly, as a dread took us lest we should have been forestalled in our projected route. None the less did it behove us to press forward,—explorers were already increasingly common in Yünnan; it was a race between French and English, and an eager rivalry had arisen even among Frenchmen themselves. The field of the unknown grew daily narrower, and blank spaces were vanishing



Street in Ssumao.

with remarkable rapidity. Hitherto we might congratulate ourselves: we had filled in the first portion of our work, and that in a country declared by the English to be impracticable. Colquhoun had written that, notwithstanding the promise of his inception, he could not advance from Manhao by the right bank of the Song-Coï; while, according to Bourne, the district which we had just traversed was without any means of communication. This state-

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ment is erroneous. Roads abound—the most insignificant village is connected with the one next to it.

No sooner were we rested, therefore, than we longed to be off. Except in the outskirts, where we picked up commercial information, there was little to repay inspection in Ssumao itself.



Pagoda in Ssumao.

Most Chinese towns are alike,—the same shops, the same trades, the same alleys with their wooden signs, and pagodas displaying hideous dragons. There was no getting about in the streets without a loafing retinue, and no remaining indoors without a crowd of idle gapers. Drive them out with a stick at one door and they flowed in again at another, to the sore trial of one's temper.

SSUMAO TO TALI

In the confined space in which we were cooped up, the germs of various minor maladies contracted *en route* began to declare themselves, and rheumatism, neuralgia, headache, and general slackness prevailed; while, in proportion as the moving accidents of travel were lacking, difficulties assumed exaggerated shape, and a mild form of nostalgia succeeded to the excitement of the road. But man proposes and—in China—man also disposes. To our followers this was a paradise which they were in no hurry to quit. Luckily our relations with the local magnate were so cordial as to console us in some measure for the delay. He was a well-educated mandarin from the neighbourhood of Chang-hai, and gave us every attention and help in his power, from which we derived considerable benefit both then and after.

We got but little information out of the natives of the district. A Lolo brought me a manuscript which he could read but not interpret, being, as he averred, a treatise in an obsolete dialect on religious subjects. I engaged this villager to write me some modern Lolo; and a young Chinese, who had brought two packets of tea as a gift, with a request that we should remove a swelling from his neck, offered himself as intermediary and scribe. He wrote down some words in Chinese which he then read to the native, who in turn rendered them into the Lolo language and characters. By this means I obtained an interesting document. It was a common appeal among these folk that we should cure them of various complaints, chiefly of the interior. My usual advice was—give up smoking opium, first of all. This was enough for my patients.

April the 11th was finally fixed for the start. The makotou and the mafous, in supplication for the road, made votive offerings to Buddha in the shape of a fowl, a pig's head, a jar

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of tchaotiou, and joss-sticks. The joss-sticks duly burned, while Buddha, like Don Cæsar de Bazan behind the bars, was only regaled by proxy. But the men made good cheer.

At the last moment, of course, difficulties cropped up to retard us. First, a squabble between the makotou and the innkeeper over a sixpence, which I left them to settle. Then a more serious difference arose in our own ranks. Some time previously one of our fellows, a Mussulman, openly denounced François to me for peculation. The disclosure had fanned the interpreter's existing hatred of the followers of the Prophet, and, notwithstanding that the man was a willing hand, he demanded that I should summarily dismiss "the despiser of pork," on the ground that he smoked opium. This was frivolous, seeing that they all shared the vice. A violent altercation ensued between François, the makotou, and the Houï Houï (Mussulman), in the course of which the last named vigorously and publicly landed one of his tormentors a punch on the head, and the other a kick behind. These straightway fled to me with their dishonour, and declared themselves irreparably insulted, and unable to proceed. Having witnessed the whole scene, our sympathies were all with the spirited Mussulman, who had only given two rogues their due; but we could hardly dispense with the interpreter. Luckily, the porter solved our embarrassment by himself requesting his discharge. We found that, on the purchase of a couple of mules here for a hundred and thirty taëls, François and the makotou had pocketed thirteen taëls as commission; and similar jobbery went on in other matters. To be robbed with our eyes open seemed inevitable: we could get on ourselves without these knaves, but what sort of information could we hope to extract without them in this wretched country!

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However, we got off at last with a brace of soldiers lent us by the mandarin to carry a letter of recommendation to the village chiefs. Four routes led to the Mekong; we chose that going most directly westward, leaving our northing to be made more gradually. On quitting the plain of Ssumao we entered a pretty country, where the sun's rays lit up hills covered with pine clumps and valleys fully cultivated, and the air was fresh and



White Rocks in Valley.

cool on green lawns. The first night out we slept beneath a pagoda, defaced with plaster deities grotesquely streaked, and seeming in vain to assay our terrors with their threefold regard. What a miserable conception the Chinese have made of their pantheon! It is hard to comprehend how they have distorted the fine ideas of Buddha by representations that are nothing but shameful, repellent, and debased.

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Half the next day was spent in the search for some of our best mules, stolen during the night. We blamed the makotou, and the makotou blamed us; but we only recovered one whose legs were hobbled, with the slender satisfaction of sending back the soldiers to report the theft to the mandarin at Ssumao.

In the evening of the 13th (April) we sighted a high range of terraced limestone cliffs with long crests broken into isolated peaks, cones, and spurs, amid a sea of pines; a wild chaos of piled rock like that which strikes the eye of the traveller in the Kai-Kinh, between Phu-lang-tuon and Langson. We doubled the chain, and halted in a Pai village. The scenery we were in was strange. Imagine a devil's punch-bowl, wide and deep, the green centre embossed with grey stones and shadowy pines, while its sides were lined with tasselled lianas and clinging plants. The vegetation, which was thick and soft below, changed as it reached the ridge, and took the ruder character of its surroundings. Gaunt rocks thrust forth white and naked heads, detached yuccas lifted their broomstick tufts against the skyline; aloes and hundred-handed cacti roughened the rim. The impenetrable bush harboured many wild animals—stags, roe-buck, bears, and they picked up and showed us the horn of a goat.

The inhabitants told of a grotto hard by, which is the object of pilgrimages from Ssumao and Pou-eul-Fou. We found it a deep excavation in the limestone hill. A small chamber at its mouth served as a residence for two guardians, whence descended a stair into a spacious hall in which were two very ordinary pagodas with yellow hangings, scented joss-sticks, and some sufficiently vile and many-coloured statuettes of Buddha. With a torch we were led into an inner cave, which contained a number

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of rather fine stalactites, like organ pipes. The Chinese, who make marvels of mites, see gods in these, before which François failed not to prostrate himself. Some certainly bore a distant resemblance to dragons and elephants, and one was curious as producing a hollow sound when struck. The guide spared us none of these prodigies, so that we gained the upper air with relief. No doubt it is an interesting cavern, but not to be compared with those of Laos and Pakai below Luang-Prabang.

In the evening the villagers, exultant in the violent death of a pig, danced before us. The performers, four in number, joined hands and alternately contracted and expanded in a circle, afterwards separating as in a quadrille. Their movements were supple, and in cadence to a double-stringed guitar. The women remained as spectators. They had a different dress to any we had before seen, being of a horizontally striped material wound round the figure for petticoat, with a short loose jacket fastened at the side, and a large turban crossed in front, something after the fashion of the Alsatian knot, and falling in flaps behind. The lobe of the ear was pierced with a large wooden spindle. These little Paï ladies with their pale tinge were less unattractive than the Chinese; Sao, at least, found them more to his taste; but to us they were very wild. The evening ended in song. The troubadour wailed in falsetto, imitating a woman, beginning each strophe with a high note which gradually died away; then, a pause, and *da capo*. After a bit it was monotonous.

On the 15th (April) we were fairly in Paï country. The people said they came here many years back from the vicinity of Yünnan-Sen. It was curious to meet here, as among the Lolos, with folk who had come from the north and east, rolled back by the Chinese into the refuge of the mountains of Yünnan, which seems to have

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been for many of the native races what Thibet has proved to certain animals—an asylum rather than a creative centre.

At Long-tang, the next evening's halt, we found the village *en fête* for the marriage of the toussou's daughter. We made ourselves at home in a pagoda, a regular Laos temple with pointed wooden roof, red pillars, and door garnished with gold and silver arabesques. The interior exhibited the votive table, bronze candlestick, and altar with marble or gilt Buddhas draped in yellow under large umbrellas. Behind the gods were three stone cones stained red, and in a corner the chair whence the priests spoke. Banners, scarves, and streamers with long inscriptions overhung the platform. The night in this abode of sanctity was marred by the devotions of the rats, which left us not a moment's peace. Nor were they the only nuisance in Long-tang. Contrary to our experience among the Laotians, the inhabitants, steeped in copious libations, became more inquisitive and familiar than was pleasant. They were of an individual type, and nowhere in China proper had we met with such independence of manner. Had it not been for the presence of the men of our own troop, we should not have known we were within the Celestial empire.

As in Laos, the bonzes were distinguished by a long yellow toga, shaved heads, and a string of beads in their hands. The laity wore their hair in a knot at the back or side of the head, with or without a cotton turban of red or yellow design. The queue was discarded as a mark of emancipation. Almost every man we met was tattooed in blue from the waist to the knee, so thickly as to give the appearance of pantaloons. Others, like the Burmese, had figures or dragons in red, enclosed within a rectangular pattern, on the breast. In physiognomy their eyes were straight, complexion bronzed, forehead slightly prominent, lower part of the face shapely, with small

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mouth, and here and there a moustache or scanty whiskers; but the lips were thick and the teeth blackened. Betel chewing was the fashion. They were clothed in a short vest and either wide blue and white trousers down to the feet, ornamented with blue, red, or yellow stripes, or simple blue woollen drawers. All had the lobe of the ear pierced and enlarged as a receptacle for flowers, or dried leaves, which served them as cigarette papers. There were also a few large hats of soft straw to be seen. Many displayed from a vest button or the ear a thin silver disc with Chinese characters, presents from the military mandarin at Ssumao to the soldiers of the toussou. An unusual thing about the houses of this place was that, instead of being on piles, as is customary among the Païs, the walls rested upon the earth and the half cone roofs of russet thatch descended to within three feet of the ground. They looked like molehills or an African village.

Taking a turn by the banks of the river, where the women were bathing as on the Mekong, I met our escort returning from Ssumao, without the mules. They brought a line from the mandarin dissuading us from going among the tribes of the Mekong, where, he said, we should encounter sickness and robbers. This terrible prospect caused François to spit blood and tremble. In the evening we had to open a consulting-room for the folk who flocked to us even from a distance for remedies. Besides the villagers, our own men were suffering from a variety of ailments, and were difficult to tend. Say what we might, they would not keep their sores or wounds from the air. Sao's legs being in a bad state, we gave him some carbolic acid. Presently the most doleful howls were heard. He had thought to effect a quicker cure by applying the acid undiluted to the raw, with dire results. We tried to alleviate his anguish with ashes, white of egg, and honey, and, after

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suffering a night of martyrdom, he got better, and the self-inflicted cauterisation contributed to a rapid recovery.

As we again approached the Mekong, present misery and future fears caused several desertions among the mafous, with whom, unfortunately, some of our effects also usually disappeared. We experienced a feeling akin to elation on regaining the banks of the great Asiatic river on which our campaigns, our old advanced claims, and our explorations have bequeathed so many rights to France. With its name are indissolubly linked those of the dauntless men who gave their lives to establish French supremacy in its valley, from Manhat, Lagrée, and Massie, down to the unknown heroes of the Thibet Mission. Athwart its waves that rolled their waters from the far Thibetan snows, my mind's eye caught the three colours of our flag; and there arose before me the record of conquest in all its steps. First, the acquisition of Cochin China in the south; the rule of the admirals; then the advance northwards into the interior; the explorations; the mighty task begun by Lagrée and ended by Garnier; with the excursions of Manhat, Harmand, Néris, and how many others! Possessions increased; the Indo-Chinese empire was created; Annam was placed under our protectorate; and whilst we let Upper Burmah escape us in the west, in the east our troops sealed the work of Jean Dupuy by giving us Tonkin. In face of England's ever-growing appetite, Jules Ferry made certain reservations relative to the Mekong valley; but years passed, and the territory which statesmen had acquired was like to be lost again. Backed by the English, Siam stood at the door of Huë, whilst tracts on the left bank of the Mekong were counterclaimed by the English Foreign Office. Our timorous diplomacy, clogged by the fear of complications, seemed unable to grasp the situation. It needed a death like Massie's, or a bold stroke, such as that of Commander

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Bary, to arouse the apathy of the Quai d'Orsay. The Siamese troops were dislodged, and the idea of a buffer State was abandoned. We have made an end of backsliding.

A diplomatic victory has been gained; we must guard against an industrial defeat. Our neighbours, who know full well that railways are the means of real colonisation, think to establish a line running from Mandalay in the direction of Xien-hong (Kiang-Hung). Nay more, the first rails have been laid. It imports us to retort to this new move of England with a similar one of our own; and to this end it is absolutely necessary for us also to have a railway penetrating China. We have a long lead in the matter of position; but again I repeat, beware of the fable of the hare and the tortoise. It is impossible to forecast the future. But a moment may be predicted when the framework of China will fall to pieces, and then,—first come first served,—those that have the best perfected scheme of communication will win.

With these and similar reflections I solaced the period of delay until the whole caravan arrived. We then set about crossing the Mekong at Notcha Tian-pi, which was effected by relays in two ferry-boats 55 feet by $6\frac{1}{2}$ feet, and was rendered arduous by the height of the freeboard, which called for jumping qualities in the mules, which all did not possess. The craft were managed by two sweeps 23 feet long—one in the stern like a rudder, worked by three men; the other athwartships forward, with seven men on it.

The river here ran at the base of steep hills, between shores of sandstone and quartz, on which I once more noted the pretty dwarf palm, like the sycas, though with more delicate leaves, that I had observed in Upper Tonkin. The depth was consider-

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able, for the boatmen could not touch bottom, the current running two knots an hour; but both above and below there were rapids of far greater strength. Its breadth at the time of our crossing (18th April) varied from 119 yards to 162 yards. In the rains there is a rise of upwards of 39 feet, and its width then must be over 200 yards. The water was cold, $66^{\circ}2$ Fahr.,



Embarkation of Mules at Notcha Tian-pi.

whilst the shade temperature of the air stood at 95° . I had remarked this chill before, when comparing its waters at Pakai with those of the Nam Ou.

At Notcha Tian-pi there was a little Chinese post for the customs on tea coming from the right bank, Mong-hai, Mong-se, and Mong-yang; duty, one to two "tens" the hundred Chinese

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kilos. The officials told us the rapids precluded any down-stream traffic, but that there were sixteen points of crossing between this and Tali above, and one a day's march below, at Kang-tang, for Manga-nan.

There were plenty of fish in the river and animals on shore; among the latter, report spoke of a wild mule with short horns. I fancy this to have been the *nemorrhædus*, which we had already heard of at Ta-tsien-lou, under the description of the "rock ass"; but the delay of at least a week on the chance of obtaining a skin did not allow of our verifying it. Peacocks and green paroquets were numerous, though I did not recognise any more of the pretty *palæornis derbyanis* so frequent around Batang.

The Laotian name Mekong was naturally unknown to the natives; the river in this part of Yünnan bearing the generic designation of Ta-kiang, or "great stream." At each point where we touched it we met with a separate title, commonly made by adding the suffix "kiang" to the name of the spot of crossing; thus, here, Kiou-lan-kiang.

Being now upon the right bank, we entered the Lochai Sing (mountain of the Lochais). A few years ago these people were at war with the Chinese, though now reported quiet, and subject to the Tcheuping-ting, or mandarin of Tcheuping, near Mong-yang. After a short stage, on the 19th (April) we passed through the important Chinese village of Dayakeu, where the chief would have constrained us to stop, and our makotou and mafous exhausted every artifice to the same end. To our surprise, and the credit of the Ssumao mandarin, be it recorded that two soldiers overtook us here with our recovered mules —an agreeable and singular contrast to the usual measure of

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Chinese assistance. We observed in Dayakeu some blocks of tin brought from Tcho-tchieu, five days westward, and learned that a little less than a ton yearly is disposed of in this district.



A Lochai.

Trade is also carried on in blue linen stuff from Ssumao, pipe tobacco from Canton, and stag horns. Rude implements for the carding of cotton were likewise met with, and a musical

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instrument made out of a gourd, into which five bamboo tubes pierced with holes were fitted.

The Lochais are a small race, with retreating foreheads and low cast of countenance. The women dress in a long Chinese robe, divided into three pleats behind over trousers, the sleeves are lined with red, and a couple of red-bordered aprons fall in front, a larger above a smaller. Out of doors they assume a small sleeveless jacket, studded with silver. Their head-gear is a large blue turban. When this is removed, a false impression of height is given to their brows, from the habit of shaving the front and sides of the head like the Chinese.

The "Doctor" had got ahead of us the preceding day, and we now came up with him in great tribulation. A mafou, while sunk in an opium sleep beneath a tree, had allowed the mule to stray that carried all his notes and scientific observations. By this time, of course, the chances were they had been pillaged, and must be recovered at all costs. Leaving him at the spot for this purpose, we moved on slowly, and with frequent halts.

A wooden bridge, over a deep and beautiful river, served as shelter for our midday meal. Two massive diagonal beams, almost meeting in the centre, upheld the thatch-covered way, to which a wicket at either end, occupied by a Chinese janitor, lent access without toll. The bridge, gilded by the sun, framed a lovely picture, where the water flashed between grey-pointed rocks and stunted palms, overhung by the orchid-laden branches of the larger trees. Beneath the bank lay a bamboo raft, on which the descent of the river could be made at flood, in three days, to the Mekong. We threw a couple of dynamite cartridges into the stream, and caught a number of fish, to the

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astonishment and delight of our men; it was pleasant to see a little cheerfulness among them for a change.

Roux did not turn up when we paused for the night at Chian-na-liang (?); and now we missed Nam, who had lost his way between our two parties. Villagers were sent out to scour the bush. They styled themselves Lolos, though just like the Lochais of the day before. We employed ourselves in watching one of them milling cotton, for which he used a contrivance consisting of two rollers placed on a frame before which he sat. The upper was of wood revolving with a hand-winches, the under of iron, of less diameter, and made to rotate at great speed by a treadle. Between them the cotton fell into a basket, and the seeds remained above.

Before turning in, I looked in on the sleeping quarters of our men. In the middle of the room were laid the materials for opium-smoking—lamp, snuffers, and pipe. François and the makotou, naked to the waist, reclined with some Lolos upon osier stools, and all were steadily stupefying themselves. In one corner a dishevelled, half-clad woman turned her spinning-wheel with measured creak; presently she desisted, and stretched herself, with a baby at her breast, upon a plank beneath a coarse coverlet, while the men conversed in low tones in Chinese or more guttural Lolo—a strange scene, lit by some bits of resinous wood upon the ground. From below came the chirrup of a cricket, and an occasional impatient shake of a cattle-bell, that spoke the famous stirring as they tethered the mules tighter against night robbers. Our orders were strict upon this head, for recent experience had taught us watchfulness.

Next morning, the 21st (April), still no news of Nam, and only bad of Roux. He had found the mule; the pack was gone.

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We decided on a short stage, to keep going, as far as the Lolo village of La-li-chin. Here, before night-fall, to our no small relief, a search-party brought in poor old Nam, none the worse for his wanderings and a night spent in a tree, save for the terror of panthers and an empty stomach. For the following day we stayed where we were, among an interesting set of people. They said they were Lolos or Chiantines, settlers here from the West two hundred years previous, but declared they had no books, and were not of the same stock as the Lolos who had. Little information, religious or other, could be got out of them, save that to the west there were the Kawas, the Iékawas, who resembled the Païs. (These are, probably, Shans or Laotians of Upper Burmah.) Wandering about their village, I gradually overcame their shyness, and excited their interest in a picture-book of the Abbé David. They also recognised the Lady Amherst pheasant, which they pronounced common in the vicinity, and showed me how they trapped quail by means of a decoy in a wicker basket. The ground is utilised to the hilltops, and after dark the clearing fires were visible creeping up the mountain-sides. The women were weavers after a primitive fashion by means of a shuttle and two wooden pedals for the woof; and all used the familiar spinning-wheel of the country.

At our request, the villagers consented to dance at night, and acquitted themselves in more varied and original sets than the Païs. Men and women joined in a circle round two musicians, who gave time and tune upon their gourd instruments, while an old man regulated the figures from without. The movements were executed in complete harmony with the measure: swaying now this way, now that, waving their arms, poising for a moment on one leg, then, striking the ground in cadence all together,

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the ring broke up into *vis-à-vis*, to advance and to retire, or to change sides by intervals. I was struck by the uniformity of the dancers, who would have cut a very respectable figure in any western assemblage. They are passionately fond of the art, and sometimes it takes the form of a regular stampede, a wild saraband accompanied by cries, but ever under control of perfect time. The Lolos seemed indefatigable; they could go on for hours, and, like the generality of uncivilised races, were naturally graceful in their pose. Seen through the haze of dust that rose from the flitting figures in the torchlight, the whole was like a magic-lantern or kaleidoscope.

On the 23rd (April) we left our sociable Lolos, with a few parting gifts. They refused utterly to accept any human likeness, even the most seductive chromo-lithographs, which I attribute to some superstitious fear.

The same day Roux happily rejoined us. He had gained the co-operation of the mandarin of Dayakeu, and with the offer of a reward had the mountain systematically searched by beating-parties of seven men under leaders. To a fellow with a goitre belonged the honour of first discovery of their object, and the firing of guns soon brought the others to the spot. The baggage was hidden in the brake. It was found intact, save for one lens of the astronomic telescope; and great was our companion's joy, for the results of four hundred and thirty-seven miles of exploration were involved. All's well that ends well; but to guard against a similar danger, duplicates and tracings were always made in future.

The country we were passing through was tame by comparison, and the route fair; hillocks with scrub, and hollows with coppice and large trees, but no birds or flowers to note, nor

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anything to break the tedious monotony. At midday on the 24th (April) the "Doctor" again left us, with one attendant, for Mong-pan and Mong-ka, down on the right bank of the Mekong. This few days' digression would enable him to settle several points in the course of the river.

On descending from some higher spurs we reached a gently



Roux at Work.

sloping tableland, and the road became more frequented. First we met a caravan of cotton, then some rice grinders, and a soldier carrying his sword in bandolier, and on his shoulder in place of a gun a bamboo, from the end of which dangled a green paroquet in a hoop. The plateau was enclosed by hills and bordered by two ravines, and resembled in its formation a glacier with its moraines. At the farther extremity the big village of

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Tachin-lao hung upon the edge of a precipitous gorge. Tachin-lao was surrounded by a rectangular enceinte of mud walls, 10 feet to 15 feet high, loopholed but not embattled. Within, the houses were spacious and built of one storey on a bamboo framework. As the majority of the population was Chinese, we were not a little surprised that they held aloof and left us in peace in our Buddha-daubed pagoda. The government was in the joint hands of a mandarin, who was a Ting, and a toussou for the Lochais.

We heard that a few days before our arrival an Englishman had been here, travelling from Ava in Burmah towards Mongpan and Mong-ka. He was engaged in marking the mountains and rivers like ourselves, and had been seeking information. This must have been the same that was at Ssumao before us. Here he only crossed our path, and our route to the north was still, as we hoped, untouched. Before leaving in the morning two little mandarins dismounted at our pagoda and entered. An attendant placed scented joss-sticks before the three altars and spread carpets for his masters, who proceeded to prostrate themselves and kneel, while a third personage recited some prayers in a loud voice. This ceremony lasted several minutes, after which the mandarins turned their backs on their gods and settled themselves to the enjoyment of their water pipes with the air of men who had done their duty.

From the heights which we now followed we obtained a good view of the features of the landscape about this part of the Mekong. We looked across a gorge so deep and abrupt that its bottom was not immediately visible, and over the top of the opposite ridge on to a succession of large valleys and chains running in parallel tiers to the glen at our feet. The aspect of the country

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sufficed to make us feel the proximity of a large though unseen body of water, and the depression which we skirted may be likened to the mid-rib of a leaf from which the membranes, here represented by the lesser chains, diverged. The left slope was sparsely wooded and thinly peopled; on our side good-sized villages were frequent. We were still among the Lochais, and got on very well with these gentry of the red-stained teeth; at least Briffaud and I had no cause of complaint, save the absence of honey, which the natives do not gather at this season on account of the bees pasturing on an unwholesome white flower. The makotou, however, was found storming and weeping and cursing by turns over the theft of his pipe, which eventually betrayed itself sticking out of a bland native's pocket. The way these Chinese shed tears over trifles was deplorable. They are perfect babies.

A torrent turned us down towards the Mekong again, and we touched it a little below the confluence of a considerable river called the Sé-kiang. The waters of the Mekong here ran low between sandy shores, varying in width from 87 yards to twice that distance, but rocks marked high-water level up to 217 and even 325 yards. The hills had sunk to insignificance, and trees stood out upon them as thin as the bristles on an elephant's forehead. At sundown we observed women from the villages climbing the slopes with boughs in their hands, like the moving wood at Dunsinane. Each had a hollow bamboo filled with stones with which they imitated the sound of the kestrel, and attracted to the branch numbers of grasshoppers, which are here esteemed a delicacy.

On the 28th (April) we made the passage of the Sé-kiang on a triangular raft built of a single layer of bamboo. When loaded

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this was warped up stream, and then let go diagonally with the current, a man aft checking it with a large rectangular paddle. Whilst this was in progress I watched the natives at breakfast: the men ate first Chinese fashion, seated on stools round a wicker table, the women after, taking the rice in their fingers.

On the other side of the Sé-kiang we began to ascend again.



Raft on the Sé-kiang.

Now that we were far from towns, the mafous were working creditably. Although very fair walkers, their calves were not much developed. On the march they were just like children, singing and whistling; but their chief joy lay in the pipe, water or ordinary, which they passed from mouth to mouth. One amused us by persistently flourishing in one hand an open umbrella, acquired from Nam in exchange for a hat, and in the other a fan, without preventing his also bearing his fair share of

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the burdens. Our own boys proved good body servants: Nam managed with only four hours' regular sleep; but then in his ordinary avocations he took three hours over what anyone else would do in one; his cooking was certainly that of a somnambulist. Briffaud and I generally kept together; and between inventing imaginary feasts, singing trooper ditties, and chatting, in addition to our collections, photographs, and notes, we quickly passed the miles away.

By the 29th (April) we were passing through beautiful scenery, the country of the Pou Mas, near akin to the Païs. Wayfarers were frequent; often we came upon those squares of cut paper that being burnt on roadside altars invoked propitious journeys. Before I came to know them well I used to think the Chinese an indifferent and sceptical race; now they seemed to me particularly superstitious. At four in the afternoon, on my overtaking the caravan, I found it halted. The old guide Panella refused to proceed, and, with many protestations, tried to make us take back the mandarin's village letter of introduction. Finding us obdurate, he laid it down and seated himself sadly on the grass, whence it took three mafous to set him going again. The very next place we entered, the crafty old fox seized on the first young man he met, thrust the letter into his unsuspecting hand, and, without explanation or adieu, stole away. His impromptu successor led us to a small Lochai hamlet on a brow with a splendid prospect. But the Hotel Bellevue, as we christened our hovel, afforded little else but a feast for the eyes, and we went hungry to bed. To bed, but not to sleep; for the inhabitants, to complete their inhospitality, kept on the prowl the livelong night, peering and vanishing and always crouching as they crept about with their resinous torches, till we thought we

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had fallen among gnomes or hobgoblins. In the daylight they were less insidious, and testified the greatest interest in our writing and in the leather of our saddles. At the next Lochai village the natives called themselves Lachos, and claimed to have been there ninety years. We wished we could have procured a specimen of Lochai writing, which they told us was in the old



Little Pagoda on Hill.

Chinese characters as used on the mandarins' seals. From Tamano, a place about the same size as Tachin-lao, our men began to step out, scenting an approach to Mienning from afar. Near our sleeping-place we saw the site of two ancient forts, one said to date from a century back. The people gave further interesting particulars about the Lochais, averring that they came, like the Lolos, from near Nang-king ages ago. They made use of a

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small yellow immortelle, which grew in quantities, for food ; the flower, leaves, and stalk were thrown into a pot, boiled till soft, and eaten.

Villages became thicker along the dale as we advanced. A Chinese horseman, followed by a tattered soldier bearing his pipe and red visiting-card portfolio, joined us on the road and showed us the way. He proved to be the chief of the district of Linguen. His voice was rougher than his manners, and through his instrumentality we enjoyed a degree of relative comfort in our next quarters at Chang-lin-gang, to which we had long been strangers.

- May opened propitiously for us in the midst of the most delightful scenery and climate. We were at this time traversing a valley of which the northern slope a little above us rose in an abrupt scarp like a lofty green wall. The panorama, unfolded before each successive eminence, gave us an admirable idea of the lay of the land. The Mekong flowed only a mile or so away, on our right. Between this valley and that of an affluent of the Salwen stood a range of low hills, and we were surprised to find so unimposing a barrier between two such large neighbour rivers. In the course of our stage on the 2nd (May) to Pochan we passed an extensive cemetery in which all the tombs lay facing east, with their entries to the south ; they had the appearance of a herd of crouching animals, great and grim. At Pochan, which is a large Chinese village at a part where the valley widens almost to a plain, we found Roux arrived only a few hours before from Tapong, after a successful excursion among the Païs of Mong-pan and Mong-ka.

We reached Mianning on the 3rd (May), pitched, like Ssumao, on rising ground, and surrounded by grey battlements.

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Without the walls fruit-trees grew in abundance; peaches, plums, pears, and pomegranates. Although the climate struck us as healthy, and the nights were cool, the inhabitants seemed much afflicted with goitre.

Disagreeable news awaited us at this place, to the effect that the English traveller before mentioned had already been here, coming from Yünchou by the way we had intended to take. This meant that we must seek another line.

Our stay at Mienning, though not of long duration, was quite enough for our enjoyment. We were badly housed in dingy and stifling quarters under the eaves, looking out into a crowded court. Food was scarce, and, if we except some fair Chinese fritters, which we sampled at a pastrycook's, was limited to pork, owing to the prohibition of the slaughter of oxen, which were kept exclusively for labour. The surrounding population was mostly Paï, and a petty village headman was found to give us directions as to the route. He was no better than an old free-booter, and informed us that he had been a leader on the Burmese frontier, but that some English having been killed by the natives, the regrettable occurrence had been laid at his door, and he had had to make himself scarce. This individual showed considerable local familiarity with the country; but when he proceeded to discourse further upon geography, and unfolded a Chinese map to assure us that the Mekong flowed to Canton and Chang-hai, we thanked him, and said that would do for the present.

Acting on his instructions, we resolved to make an elbow by the side of the Mekong, thus avoiding the Englishman's tracks. The soldiers lent us by the mandarin could not grasp the idea that we were engaged in "sialon," nor was it worth while to enlist their sympathy with the aims and ambitions of exploration.

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The usual difficulties attending a start were increased by the irritating dalliance of the makotou, whose incessant iteration of the words "mai" (buy) and "injen" (money) nearly drove us mad. The avarice of the man was but one of his faults. The chief part of every night he gave up to his besetting vice of opium-smoking, emerging in the morning with blear and swollen eyes to enter upon an arduous march, in which he would have to busy himself, keep the mules going, and superintend the loads, all generally performed with an open sore on his leg. It was marvellous what the dominating greed of gain and self-indulgence would enable such a being to carry through when he was inevitably approaching the premature exhaustion of his vital forces. François and he were two typical real Chinese, and furnished in daily intercourse a perfect sample of what goes to make up the essence of the Chinese character in its few redeeming features, hideous vices, and insurmountable failings. It is narrated of certain *pecaris*, that if a traveller takes refuge from their charge in a tree, they will beleaguer the trunk till he drops among them from exhaustion. The Chinese always gave me the idea of these wild boars. To see them seated below us immovable throughout a whole day, scarce stirring their hands save to fill the water pipe, or their jaws to exchange a few words, they seemed doggedly to await something from our hands which they would not get. If one dispersed them, they immediately reclosed their ranks as before. Like as the people, such are their rulers : what possible impression can our diplomatists, using the methods of civilised nations, make upon this gelatinous mass, or what hold can be taken of that which continually slips through one's fingers ?

Throughout the day we followed the valley of the Nan-Ting-ho, which forms a complete basin around Mienning. The rice swamps

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were full of women at work, up to their waists in the water, whilst elsewhere men standing upon their harrows with lean legs outstretched, like 'bus conductors, guided their buffaloes as in some ancient Egyptian design. At the end of several hours we discovered that we were not going east towards Kubi-kiang, as we should have been, but were gaily pursuing the main Yünchou route, already traversed by the English party. The caravan was halted, amid the protestations of the mafous that they knew no other road. We were not going to be done in this way—"to a Chinese, a Chinese and a half." Accordingly camp was formed for the night where we were, and the clear moonlight among the rice and trees soothed us for the vexation of two days lost.

Next morning, the 6th (May), back on our tracks almost as far as Mienning to find the little path. The makotou was at his old tricks again, but with Sao's aid his little game was unmasked. He had discharged two mafous and substituted a couple of traders, who, by smuggling their stuff into our train, thus hoped to evade the octroi at Tali. There was no end to their chicanery, and our change of road had nicely upset their calculations.

But retribution of a different sort awaited the makotou before the day was out. Scarcely had we lit our evening pipes and were contemplating the first blue wreaths of smoke, while the fleas began to climb our supine limbs, when a hubbub arose among our men, who came running towards us with cries of "makotou, Lohiang, todzan!" (knife). Hastening down, we found the makotou bleeding profusely from several wounds, and it was some little time ere we could learn the facts of the case. It will be remembered that some time back a mafou called Manhao had been maltreated by the makotou under the suspicion of a theft. A repetition of the robbery having just been traced to a second mafou seemed to indicate the

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latter as the perpetrator of both acts. Thereupon Manhao, or Lohiang as he was equally called, heaping reproaches on the makotou for his former brutality, enforced his innocence by driving his knife into his persecutor three times, cutting him up rather badly on his arm and both legs, though luckily without touching an artery. He then fled. Here was another trait of Chinese character—revenge sullenly nursed for a month and a half.

We washed and dressed the wounds with antiseptics, in which operation Sao again acquitted himself with credit. The rest of the Chinese looked on with indifference, if not with satisfaction, notably François, who gave his version of the story as rather entertaining than otherwise. The callousness of these fellows for each other was exasperating. How different from our Turkomans at Lob-Nor, tending old sick Imatou like a child, and showing lively concern for his suffering!

The following morning the scene was even more revolting. The makotou declared that he would go back on horseback at once, but finally yielded with a bad grace to my advice that he should rest a bit. Then he began about payment. This man, reduced as he was by fever, found strength to get up and drag himself before us; and there with blood-smeared face and legs caked with gore, propped against a pack-saddle, he proceeded with palsied hands to haggle over his interests with such greed and tenacity as might have induced one to suppose he had nothing but a shilling-piece in the place where his heart ought to be. First he wanted us to give him the wages for his men. For a long time past we had paid these direct, in consequence of his cheating them: so that cock wouldn't fight. Then he accused them of being in his debt. We made each come singly with an account of the sum claimed. But by this time we were implacable to his subterfuges, and I verily believe that if

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we had had much more of this sort of work we should have learned to meet the Chinese upon their own ground. As it was, I was disgusted and tired of having any dealings with these rapacious scoundrels, whose every breath, word, and thought was money, money, money; from those who would see a comrade wounded without a sign of compassion beyond a shrug of the shoulders, down to the interpreter, who, at the makotou's departure, stripped the very cap off his head because it was new, and because "he would have no need of it now that he had ceased to serve the Tajen." The Chinese have a big lesson to learn from themselves. For my own part I now knew more than enough of them, and hastened the time when we should get away from their sordid, contemptible natures to live among lawless savages and brigands, who at least would have one respectable attribute of freedom or personal pride.

Having given the title and functions of makotou to a young fellow in the troop called Lichatan, we resumed our journey, and passed the remainder of the day climbing the larch and oak-covered hills that marked the interval between the Mekong and the Salwen basins. We camped in the open.

The event of the 8th (May) was the meeting with a few sheep. We had not seen any for two months, and our stomachs yearned at the sight. To point out a "*pé i ang*" (white sheep) to Chantzeu, strike a bargain with the shepherd, and to have it strapped on Fa's shoulders was the work of no time. As when the Aïnos kill a bear they celebrate the event and call it the Bear Feast, so we, almost as hirsute as the "sons of dogs," now held the Feast of Sheep, and revelled in the varied dressings of the unwonted food, which we wetted with Japanese wine and finished with coffee and "real Habanas" of our own manufacture.

As we marched next day still up the Mekong valley the track

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deteriorated into gravel and loose stones, among which the mules fell about a good deal. In the glittering sands formed by the detrition of the felspar granite Nam thought he had found gold, to Sao's derision when it proved but mica. By midday we had ascended to a narrow terrace on which we baited. The packs were ranged round the edge like a parapet, within which the men, mostly stripped to the waist, bestirred themselves to hang the big pot and the general tea-kettle upon forked sticks over the crackling fire, where presently the rice began to bubble. In a corner Nam turned a leg of mutton on a bamboo spit, and some natives with an offering of honey sat silent by watching our every movement over their pipes. The scene had for outlook the whole valley of the Mekong, with crests and curves and pine woods of its middle distance swelling further to larger heights that towered on the horizon into a fleecy cloudland. The effect was the grander from the drop which met the eye sharp off our brink into the bottom far below. We found the flora richer as we advanced; beside pine, walnut, and peach trees grew the plantain, pomegranate, and palm, and on the trunks of the hardy northerners clung that beautiful creeper called *Manolerra deliciosa*, which I had first seen in Ceylon. Birds flew among the branches, and afforded varied subjects to the collector's gun. We heard of peacocks even in this latitude. It was an amusing sight of an evening to watch the flocks of paroquets homing in the big trees by some pagoda, the first arrivals calling with shrill clamour to the belated ones as they hurried in from the depths of the woods.

On the 11th (May) we entered the region of Mong Ma, whose people were chiefly Paï, as evidenced at the approach to the large village of Ta-tse-kaï by the lozenge-shaped bamboo erections

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against evil spirits. In the streets were to be seen several yellow-robed young bonzes, and as it was market-day a considerable rabble was attracted by our passage; but it was orderly, and in many cases the pedestrians did reverence to us. We could not help laughing at the figure cut by our soldier escort, who, in addition to carrying the traditional parasol in bandolier, wore in guise of martial casque an inverted rice kettle, like Mambrino's helmet, on his pate.

In the midst of the fields hereabouts there often rose circular mounds planted with large trees and occasionally enclosed by walls. The summit usually contained two or three tombs. These barrows were very like the menhirs and dolmens seen in Brittany, where they are called "fairy rings," or like the cromlechs in parts of England.

On riding into camp in the evening I saw Briffaud and Nam coming towards me with evident tidings of annoyance. In defiance of my injunctions, the men, at the instigation of François, had tried to stop in Ta-tse-kai, which intention Briffaud had frustrated. Shortly after, he had again occasion to tell François to recall some of the mafous from a wrong road, whereupon the interpreter in good round French grossly insulted him. My comrade at once jumped down, tumbled him off his nag, and gave him a drubbing. The rascal called loudly on the mafous for aid, and Briffaud promised that the first man to lay a finger on him would get his head broken. On my arrival François pretended that his abuse had been levelled at a Chinese mafou and not at Briffaud, declared he was my interpreter and no one else's, and concluded by declining to go any farther. "Very good," said I, "make out your account."

Then Lichatan, the new makotou, approached with four mafous

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and announced that they could no longer remain with us because we beat the Chinese. At this juncture a new champion entered the lists on our behalf in the person of Sao, who, understanding Chinese, used it to such effect that, having at my suggestion gone among the men and heard their tale, the mutineers were presently brought back to reason and their allegiance. Of course François was at the bottom of it all. He had spread falsehoods that the assault had been unprovoked, and that we were brutes, who were going to lead them into a country of brigands without pay. Sao scattered this fabrication by the contemptuous assurance that it was a bundle of lies, and that if they left us we should simply get others in their place, who would jump at the wages offered. Next morning François came with a discomfited air to be paid, and then asked for a certificate, which I refused point-blank. "But I have worked well," whined he. I rejoined that that was not my experience, and, after judicially summing up his many impertinences to his culminating act of insubordination, dismissed him. So we were well rid of our odious interpreter, and would have to make shift as best we might for the next fortnight till we got to Tali. If our local information should be less, our progress in elementary Chinese would be more.

During the 12th and 13th (May) we passed over a series of unimportant hills from the bed of the Mong-ma-ta-ho, the course of which we followed for a bit, to that of a swifter stream, the Lan-cho-ho. On the 14th, in the morning, I escaped a nasty accident. I was leading my mule over some rough planks that spanned a shut-in torrent, when he slipped and fell into the rocky chasm. I thought he must be killed, as he lay quite still; but these animals fall like cats, and it was not long before we had him on his legs again. The same evening we crossed a strong river

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by a wattled bridge, and entered the town of Yünchou. It was night, and the streets were very animated, the people moving about by the glimmer of paper lanterns, and making purchases of fruit, grain, or fritters at shops lit by greasy lamps. In front of most of the houses scented joss-sticks burned in honour of Buddha, and looked from afar like glowing cigar ends. A maimed and nasal beggar trailed himself along the middle of the thoroughfare holding out a wooden bowl, into which an occasional sapeck rattled. Before one door twisted hangings of linen were draped upon a frame, denoting that a wedding was about to take place. Through this bustling scene we wended our way to an unusually retired inn.

From Yünchou, on the morrow, we despatched a courier to Tali. Meanwhile we descended into the town and expended some money and bad Chinese on various purchases. We got on with our bargaining very fairly considering, though the incessant requisitions of our men in their efforts to delay the move necessitated our submitting to a certain amount of fleecing. Still, we were on the road again by the 16th (May), proceeding through a fertile district of maize, sugar-cane, and rice. The grey and white pagodas which we passed disclosed a series of interior courts arranged in rectangular tiers like Thibetan Lamaserais or ancient Jewish temples. But, on the whole, the country was monotonous, and our chief diversion lay in observing the habits of our own troop and of the natives whom we met. Among the former, Sao, in addition to his other services, now helped us after a fashion as an interpreter, and, on inquiry of us if we should have to do with many more Chinese, ejaculated his usual pithy comment, "Plenty stupid!"

Numerous mule caravans crossed us, the leaders' heads adorned

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with feathers of the Lady Amherst pheasant. Their loads for the most part consisted of small wedges of iron, like bricks, sometimes of bales of cotton. In one day we counted as many as one hundred and fifty animals. Now and then a rising ground was capped by a mud-built watch-tower, in shape like a three-sided sentry-box, 10 feet high,



Carriers met on the Road.

with loopholes, probably relics of the Mussulman war. At greater distances apart upon the hilltops rose obelisks of dazzling white masonry. I rode up to one, and found it to be quadrilateral, about 40 feet high, surmounted by a ball, to which a prickly pear-tree had by some means attached itself, perhaps seeded by the many black-

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birds that flew around the monument. A little farther, to our no small astonishment, we found ourselves face to face with three elephants, busy eating the foliage. We hardly expected to see these beasts in China, but were told they had been sent from Mong-le, Ava way, only a year before.

Chunning-Fou next came in sight upon the lower face of the hills above a torrent. Inside its grey and loopholed walls there appeared but little life: its roomy houses, gardens, and wide streets had the air of a quiet provincial town, and by contrast with commercial Ssumao it suggested in a minor degree the ratio of Washington to New York. The people, too, were civil, and we were positively able to joke with them; so that it was a pleasure to admit that all Chinese even are not cast in the same mould.

Two days more brought us again back to the bed of the Mekong, here steep and deep and wooded in patches. We made our way on the 20th (May) down to a bridge composed of fourteen chains among rocks, which bore surface inscriptions in Chinese. The mules crossed in single file; but notwithstanding that the planks were in fair repair, the oscillation slight, and that two chains served as a handrail, the passage needed a cool head. The locality chosen for this bridge over the Mekong was a constricted reach sixty-seven paces, say from 48 yards to 54 yards across. The river widened again a little lower, but was far from what it had been at Sien-kiang. The difference of altitude, too, was great for its breadth, cliffs of 975 feet falling steeply to the water's edge, with only a streak of sand at their base. The water must be deep under them. As we climbed the farther (eastern) side, I threw a glance back upon the river, which this time we should leave for a considerable space. The bridge emerging from and entering a little white-walled, grey-

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roofed Chinese gatehouse at either end had something light and elegant yet withal daring in the way in which it was flung like a gossamer ladder athwart the flood that flowed with sullen force full 60 feet below. Confined as it was, the stream bore on its face the evidence of restrained power, the might of the great water which pours from north to south of Indo-China, to spread with many affluents at last through Cambodia and Cochin China over French territory. Once more, greeting to the vast river, over and again purchased to France by the blood of her soldiers, by the lives of her explorers, and by the achievements of diplomacy!

The march of the 21st (May) was only broken by an incident that might have had a different termination. We were riding along the brink of a sharp declivity, and Briffaud had just remarked on the danger of a slip, when hardly were the words uttered before I saw Sao fall from his mule and roll over and over till caught by a bush 50 feet below. In a moment I was off, and sliding down to his help as best I could. By little short of a miracle he was found to have sustained no lasting hurt: he had fallen asleep in the saddle, and had a wonderful escape. Before halting in the evening we observed by the roadside a sort of gallows, from which was hung a basket with what seemed the queue of a Chinese sticking out of it. An inscription warned the passer-by that this was the head of a pirate.

On the 22nd (May) we reached the Siao-kiang (little river), wrongly called by Europeans the Yang-pi, from a place on its banks. The stream stole along with a singular ruddy tinge that harmonised well with the pale yellow herbage of its grey shores. A neat little village was coquettishly perched half-way up the opposite hillside, and behind it the fields rose to pastures, which yielded in turn to red earth at the margin of the pines. Between

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the masses of rock that projected sharp shadows in the hot glare of an afternoon sun, the dale we were threading seemed almost a defile, over the glassy floor of which stately moving cloud shapes slowly travelled. The passage of the river was easily effected on a bamboo raft; after which we gradually left the pleasing scenery, which lost nothing from the approach of evening. Before the stage's end our eyes were arrested by a



On the Banks of the Siao-kiang, or Yang-pi.

limestone cliff rising to a height of 260 feet. The splintered points upon its brow resembled the florets on a crown, and round them a few saplings lifted their slender, almost aerial foliage. To a ledge in mid-face, and actually sustained by iron rivets, clung a little three-storeyed pagoda, Khou-an-yn-Miao, the house of the goddess Khou-an-yn. It was a structure of grey roof upon lighter walls, with broad black bands on which were traced some large white characters. The prickly pear above and yellow



Pagoda Khou-an-yn-Miao.

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shrub below sought foothold in the crannies, and the rock buttress that struck abruptly downwards amid the tree tops seemed placed for a pedestal to the edifice. For conscience' sake I visited the temple, to which access was gained by a slanting ladder fully in keeping with its precarious surroundings. The only living inmate of this eyrie was a guardian who maintained the fire and joss-sticks before some very ordinary gilded gods.

From our rest camp of the 24th (May) we had a good view of the Mêng-hua-ting valley. On the map its waters belong to the basin of the Red River. Going on in advance, Roux and I in one day almost reached the head of the valley, which was about two miles wide and filled with corn, then in full tide of harvesting. The peasantry were poor, and called themselves Tchou-cho-hos, and not Chinese; according to our men they were Pe Lolos. We left Mêng-hua-ting on our right, the town seeming unimportant; but the road was broad and paved, and dotted with many caravans, chiefly of salt or cotton under striped coverings that looked like Thibetan stuff.

Ascending the chain that formed the end of the valley, we attained the summit, after some hours' climb, on the 26th (May). Before us lay the lake of Tali. The hills on its eastern shores rested upon its brink, on the west they were separated from it by a strip of land a mile and a half wide, laid out in squares of yellow and green crops, and studded with villages. The lake lengthens out towards the north, and at first sight appears smaller than that of Yünnan-Sen—no doubt because it is narrower. Under the rain clouds in which we viewed it for the first time, it had a disappointing effect, though perhaps a different impression might be conveyed with the mountain-tops clear and a ray of sun to light up the waves. Then one might more easily appreciate the legendary beauty of this

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sheet of water, which has such a hold upon the imagination of the untutored native mind. As it was, it required some effort of the fancy to picture the Golden Bird of the Thibetan fables hovering over the face of the sacred waters.

Nevertheless, our men were filled with joy, and sang and shouted as they marched. We descended the hill with lengthened stride, and I called to mind many a strange stage in my former travels, such as when on leaving Thibet we hastened down to Ta-tsien-lou. At the base of the hills, in stony chaos, lay the cemetery—the town of the dead at the gate of the living. We reached the river that forms the outlet of the lake; and here three routes converged: the one from the capital; our own; and that from Burmah, called the Ambassadors' Road. Along the last named stretched into the distance the posts of the new telegraph line from Bhamo—the Future; and here on the right bank of the river—the Past, a grey loopholed wall, with battlements and bastions crumbling to decay, vestiges of the Mussulman war.

After passing the village of Chia-kouan (South-port), the way lay through fields and close-lying hamlets. It was dark by the time we came to the gate of Tali; luckily, it had not yet been closed. A tunnel led under the ramparts, and, once inside, we asked to be brought to the house of the French Father. After a long détour, our guide stopped before a dwelling, and I hailed loudly for admittance; then, finding a side door open, entered. What was our surprise to hear a feminine European voice! The owner at the same moment appeared at the head of the staircase with a companion, both dressed as Chinese, and disclosed herself as a young English lady. I was almost as taken aback as our men, who had probably never seen a European woman before, and stood there rolling their eyes in wonder; but, mutual explanations being

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tendered, we found we were in the house of the wife of the Protestant minister, himself away from home, and she politely sent a servant to guide us to the mission. But our adventures were not quite complete; for in their admiration of the European fair sex our men had forgotten the mules, which had quietly scattered down the tortuous lanes of the vicinity, where we had to organise a battue for their recovery. So that it was late ere we were all at last safely gathered within the walls of the Father's compound.



Father Leguilcher.

CHAPTER IV

TALI-FOU

Father Leguilcher—History of Tali—Francis Garnier—Murder of Margary—Mussulman War—Persecution of Christians—Our Relations with the Mandarins—Trade—The Minchias—Environs of Tali—The Lake—Chinese Superstition.

FATHER LEGUILCHER, in whose house we were now lodged, had been forty-three years in China, in succession to Fathers Huot, Dumont, and Fage, and was still in full vigour for his work.

The dwelling which he occupied was built in 1868, by the eldest brother of a leading Mussulman, and was one of the best in Tali. Entrance to it was gained through several paved interior courts, round which were ranged stone benches, with

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marble vases supporting pleached trees, pomegranates, and nasturtium. In rear of the living-part was a garden full of palms, orange and apricot trees, and many lesser plants dear to the French palate. In this retreat we rested for the next three weeks; going out but seldom, and occupying our time in the settlement of our past and arrangement for our future journeys, and in the agreeable society of our fellow-countryman.

The town of Tali is of considerable though uncertain antiquity. It formed once the capital of a native dynasty, of which the last king was called Pe. Some Minchias, said to have come from the neighbourhood of Nanking, established themselves in the district, and were subjugated by the Chinese, who suppressed their kingdom, but left the native chiefs under the name of toussous. Within more recent time the history of Tali developed incidents of directer interest for Europeans.

In 1875 Margary was assassinated, on the road from Tali to Bhamo, by the subalterns, Lisen-tajen, of the tchentai of Teng-Yieh, acting under the orders of the notorious viceroy of Yünnan, Tsen. This latter expiated his cruelties eleven years later, and it is related of him that he was haunted to the day of his death by the spectres of his numerous victims, often causing him to stop while on the march to offer supplications for his riddance from their persecution. Before that, in 1863, a Frenchman, Garnier, had visited Tali; and Father Leguilcher told us at what extreme risk he had himself accompanied the traveller on this stage of his journey.

Coming to a later date, it was the capture of Tali that put an end to the Mussulman war, when the town was delivered into the hands of the Imperial troops by treachery. Tsen arrived just after the surrender, under the terms of which the

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general of the Chinese forces had guaranteed the lives of the inhabitants. "The promise was yours, not mine," remarked Tsen; and, having invited the leading Mussulmans to his quarters, he had them all butchered, while, at the same time, a cannon shot gave the signal for an indiscriminate massacre in the town. This bad faith is quite a familiar feature among Chinese of all ranks and of all time; Li-Hung-Chang only just escaped being pistoled by Gordon for a like falsehood. At the period of our sojourn the town was tranquil. The people seemed scarcely even aware that China was at war with Japan.

Our presence, however, started some sinister rumours in the direction of renewed massacres of the Christians. Happily, these received no further expression at the time; but there is little lasting confidence in the safety of either life or property. The murder of Father Batifaut in this province was still sufficiently in mind. He was killed in 1874 at the gate of Pien-kio, while visiting a Christian convert. His assailants were rebels, with whom he had refused to associate himself, so that he actually lost his life through a respect for the Imperial authority. The matter was not carried to Pekin, and was allowed to drop. The next victim was a convert, Kieou-Japine by name, sacrificed out of spite against Father Charrère, who had gained the hatred of the mandarins by the determination and success of his work. This death also is to be laid to the charge of the Viceroy Tsen. The Father himself only eluded a similar fate by the timely warning of Father Leguilcher, and effected his escape, with a small band of disciples, just before the gates were shut. On this occasion forty Christians fell, the church was destroyed, and the funds confiscated. About the

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same period over two thousand Christians were killed on the banks of the Blue River, for which no redress has ever been obtained.

The 28th of March 1884 saw the murder of Father Terrace at Chia-fung-tse. An accusation had been trumped up against him, which the taotai of Tali, Fong by name, refused to entertain. But a Fou-kien mandarin of the third order encouraged it, and gave the people carte-blanche to wreak their will. The Father was accordingly besieged in his house, and, after an heroic defence through an entire night, aided only by two aged women, he was stoned to death. His body was subjected to horrible mutilations, the heart and liver being boiled in a cauldron; and it was with feelings of extreme repulsion and self-repression that, some months after the occurrence, Father Leguilcher found himself constrained by his position to entertain the perpetrator of this diabolical human cookery. The Chinese Government subsequently paid fifty thousand taëls to the mission, as compensation for the outrage.

The Father told us that it was no specific witchcraft that was attributed to the Christians, but such idle superstitions as the supposed evil augury of cutting a fowl's tail-feathers, that sufficed to inflame the fanaticism of the Chinese against them. In the days of their worst terror the Christians adopted a private argot among themselves, which their oppressors called "devil talk"; but it only survives now among a few of the former generation.

As a rule, the persecution is the work of members of secret societies fostered by the mandarins, "The United Brotherhood" as they are termed. They burn incense, a cock is killed, and his blood, mixed with spirit, is drunk by every confederate.

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The latter were formerly known by the title of Chaothiang paipa (*by the burning of incense the brethren are known*); later as Kiang-fou-houi (*river-lake of the Hou-Pe, sect centre*), Kolao (*elder brothers, younger brothers*). Their most ordinary designation, however, is Chiao-chiang-tichiang (*incense burners, elders, youngers*). It is even hinted that the leaders of these leagues aim at the actual overthrow of the present dynasty.



The Pet.

sell their children: one such, an urchin of seven years, about the size of a child of three at home, became quite a pet of ours. He had a holiday in honour of our visit, and spent the whole day in the court silently intent upon our movements, save when we took any notice of him, when his face expanded into a wide smile, which, while it closed his eyes, permitted only the tip of



Street in Tati-Fou.

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his tongue to protrude from the creases of his fat little countenance.

If we were well treated within the Father's domicile, we were not neglectful of the external forms of ceremony advisable towards the authorities. The day following our arrival we duly sallied forth to the houses of the two mandarins, the military chief, and the taotaï, whom we had previously advertised of our visit, and who had signified their gracious intention to accord us an interview. But on our presenting ourselves at their respective yamen, we were, in each case, refused audience on the plea of a headache. We regretted having so far put ourselves out for such ill-bred curmudgeons ; and when, a few days afterwards, some soldiers were sent with a demand for our passports, we took the opportunity of replying that men of our rank were accustomed to travel in formal order, and that as the mandarins had declined to see us personally there could be no necessity for them to inspect our papers.

Tali has a population of about twenty thousand souls. Two principal streets traverse it, one long one running north and south, and the other descending towards the east to the lake side. The town offers but few points of interest to the traveller. The eye is attracted by a great grey block of masonry at the entrance to the main gate. This is the bell and drum tower, furnishing quarters to a few soldiers, whence a bell gives the signal for gun-fire at night-fall, and every two hours for the watch. Small shops line the sides of the two chief streets, as in most Chinese towns. Goods of European manufacture, chiefly English, come from Burmah, or from Pésé on the Canton River; those brought from the east have, before reaching Tali, to pass the head of the shortest route of penetration into China by the Red River. A few silk stuffs descend from Setchuen.

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In the way of local trade I only noticed some round or square slabs of marble from the Tsang-chang mountains. They are veined, and are valued according as they bear a more or less fanciful resemblance to men, animals, or mountains. A fair sale is also carried on in skins—tiger, panther, little lynx, a greyish wolf, and pandas (*Ailurus*), the thick ringed tails of which were

to be seen hanging in bunches before the door-posts. At Tali also there is a house which has a dépôt of tea from Pou-eul-Fou. A wine of Lykiang, made from barley, and not unlike certain Spanish vintages to the palate, is sold here. Cette is the only other place, to my knowledge, where wine is made without the fruit of the grape.

Besides such articles



Tali-Fou Woman.

as those above mentioned, many Thibetan woollen stuffs, thick and warm, find their way hither. On one day (5th June) we met a caravan coming from the tea-gardens, consisting of no fewer than three hundred Thibetan horses and mules, bound for Atentsé. With them we saw several of those enormous black and tan dogs of Thibet which can only live in cold climates.

Food resources seemed plentiful: beef, mutton, vegetables, and

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potatoes. Butter is made by Christian converts at about two days' distance; and often, while enjoying the luxury of our repasts here, we thought with some sorrow of the renewal of hard fare which awaited us in a few days.

The Minchia population, which is in the majority and very prolific in its increase, has been established here for some thousands of years. The type is hard to distinguish from Chinese, but the language is different. Mussulmans are also numerous, and many of them have been embodied in the army. In the opinion of the Father, the accession of the Mussulmans does not promise much opening of the country to foreigners; they talk of their advent, but at heart they do not desire it.

Immediately behind Tali itself the mountain rises steeply in scarps, green indeed, but totally devoid of timber, up to the sharp rocks of its summit, which stands at an altitude of 13,000 feet in isolation—a befitting natural screen and abutment to the lake lying at its feet. During our stay we only saw snow on its head for a few hours; it is rare in summer, but during eight months of the year the cap is always white. The chain of Tsang-chang placed like a wall between Chinese Yünnan, the civilised province, and the little-known and wild regions of the Kachins of Upper Burmah, and, to the right, of Thibet, reminded me of the rampart of the Altyn-Dagh, the Golden Mountains, which seem to forbid any approach from the north to Thibet the mysterious. Here, as on the south of the Lob-Nor, legends hover above their peaks, to daunt the traveller. Few are they that have crossed the barrier; and of those bold spirits that have dared its perils rarely have any re-emerged. Its inaccessible crags resist the proffered violation of their secrecy; cold grips the foolhardy mountaineer, and he drops amid their unforgiving

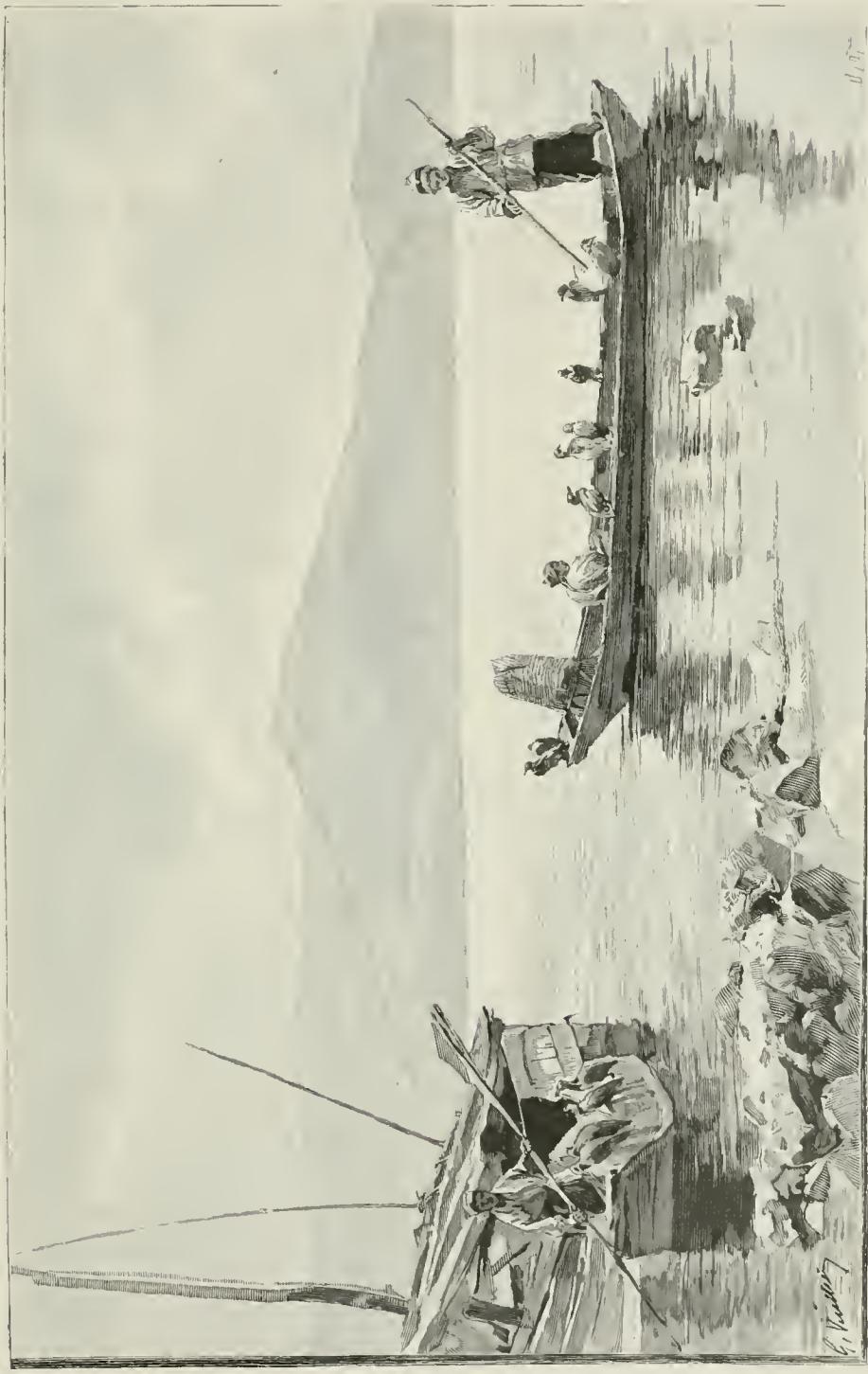
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solitudes. It was at 9,750 feet that a dozen bodies were discovered, crouched, locked together for a long-lost warmth, and frozen stiff. Yet at this height the effects of mountain atmosphere are not so generally fatal.

At a short distance east of the town the margin of the lake Er-hai extends from north-north-west to south-east; and the plain which fringes it and environs Tali strikes the base of the Tsang-Chang mountains, and spreads over an area of a dozen leagues. Nothing can adequately convey a sense of its fertility. Between the three hundred and seventy-five villages it contains there is not a rood of fallow ground, and every field yields two harvests a year. The only rest the soil gets is in a change of crops. The chief products are corn, maize, opium, rice, and buckwheat. No tax burdens the farmer, and quite a small plot belonging to the mission brings in fifty taels per annum.

At the two extremities of the lake the little towns of Chankouan and Chia-kouan (upper and lower gate) mark the limits of the plain. With a few slight military works on the north and south,—its natural defences suffice for the east and west,—the place might be held for a long time against an enemy from without, especially as the besieged would have ample and practically inexhaustible food supplies at their very gates. From which it may be seen, as before indicated, that the triumph of the Imperial troops in 1871 was due to the treachery instilled among the lieutenants of the Sultan rather than to force or famine.

One afternoon of our stay I escaped from the mission and turned my mule down towards the lake. It was about three-quarters of an hour's ride through cultivated fields to the shore, bordered with trees and villages. Over the tranquil surface of



Lake Er-hai.

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the blue-green water glided several boats about 40 feet long, each with a single mast and a large rectangular sail of matting. On the opposite side the hills were rounded and barren, with veins of red that meandered down their slopes into the water. It would have been a scene of calm contemplation as I sat on a stone to enjoy it, but for the hateful Chinese crowd that hustled and shut me in. At such moments a murderous desire came upon one to fling oneself, knife and revolver in hand, upon the repulsive mob that would not let one breathe the fresh air in peace for a moment. For it was a delightful spot that I had selected, beneath the shade of some willows where a green margin of turf sloped to a bank of shells upon the edge of the lake. Small barques slipped silently inshore, propelled almost without a ripple by a light and tapering pole plied lazily from the stern. In the gathering dusk they showed but as dark shadows; on prow and gunwale perched a motionless row of sombre cormorants, so that each vessel seemed the ship of Charon. Whether from the plumage of the birds, or from their attitude, the whole convoy presented a weird, funereal appearance. But the odour of their freight presently declared them only fishers returned from water-hawking. To each boat there are eight cormorants; a straw collar round the throat prevents their bolting the fish that they have struck, and the men have a seine of plaited osier for the prey. Here from the lake side Tali was but half visible, nor from the few roofs emerging from the green would anyone suspect the proximity of so large a town.

But it was time to be up and away. Our money and cases had come up from Mongtse, the taëls in little packages of five bags each, carried by six men in osier baskets balanced on their shoulders. As we advanced we reduced our retinue, and here

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dismissed most of our former masous and disposed of several mules.

Before we left we received a visit from two of the Fathers, Pitou and Reichenbach, whose station was two days' distant from Tali; and with six Frenchmen momentarily united in a

far country it may be judged if the party broke up early. The missionaries gave us interesting details of the country, especially regarding the superstitions of the Chinese in Tali, among which the errors of the Middle Ages lived again. For instance, in the heart of the larger cactus is found a pith, which to a lively imagination



Main Gate Tali-Fou.

presents the semblance of a doll. In this the natives see the embryo European, and to be beforehand with a possible invasion slay every cactus in the place. Again, when rain is wanted a long paper dragon is carried through the streets; or, more effectual still, a dressed-up dog is carried in a palanquin, before which the very mandarins must bow for the propitiation of the skies.

CHAPTER V

FROM TALI TO TSEKOU

Caravan Reconstituted—Joseph—Departure from Tali—Fong-Yu—Cross the Yang-pi—Salt Works at Tien-eul-tsin—Dread of the “Barbarians”—Bridge over the Mekong—Fey-long-kiao—Strange Gods—Lao; Extreme Chinese Village—Valley Tangle—The Salwen—A Friendly Toussou—His Office—Between the two Rivers—The “Gate of the Tiger”—Subterranean Cavern—Lissou Tallies—The Mekong again—Cord Bridge at Piao-ts'en—New Year's Trees—Tono Monstrosities—A Thief Forestalled—Lamasjens—Successful Robbery; an Unfortunate Loss—Native Dance—Lamasjen and Lissou Customs—A Village Esmeralda—Administration—False Alarms—In-Chouan; Ruined Village—Side Expedition to Téki—Explanation of Wild Loutses—Toti—Expected Attack—On Guard—Cross-Bows and Poisoned Arrows—Deities at Fong-Chouan; Joseph as Cicerone—Curious Emblems—Different Names of the Salwen—First mention of the Kiou-Kiang—Loutses and their Prisoners—with Dance and Song—to the Spirit of the Earth—Thibetan Tents Sighted—Town of Hsiao-Ouïsi—Father Tintet—Trials of the Missionaries—News from Tali—Full Stop on the Right Bank—We recross the Mekong at Halo—Hopatié Fête—Caravan Divided—Lama-serai of Kampou—Description—Points of Similarity between Roman Catholicism and Thibetan Buddhism—Yetché: its Ruler and People—The Mossos—Their History, Customs, and Method of Writing—Visit to the King—Moso equivalent for Bell, Book, and Candle—Arrival at Tsekou—Retrospect.

By the 14th of June our preparations were complete. We had no time to lose, and wished to be off. Henceforward, as we should no longer be able, as at Mongtse, to fall back on a relay or a reserve, it was necessary to carry with us everything that we should require to the end—money, lights, stores, etc. We left with the missionaries the collections made up to this point, and some superfluous baggage for remission to Mongtse, but, in view of the country we were about to enter, we were obliged to

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augment our packages, and, in consequence, our caravan. We took one load of horse-shoes; another of tea (for personal consumption as well as for barter); one of grease, made up dry in small leather bags; two dozen lbs. of sugar; three sheepskin beds (making one load), tunics of the same with the wool on; felt boots;



Some of our Escort.

and two large plain tents for the men. One of the most difficult questions was that of lights; we had with us candles calculated for six months. Our beasts had been partly changed and our retinue renewed, so that we felt as though starting on a fresh expedition.

We had experienced no difficulty at Tali in procuring strong

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mules. Our caravan was composed of thirty such, of which six were for the saddle. We mustered sixteen men, all told. Our two Annamite boys, after a little hesitation, decided to go forward with us; but of the Chinese who entered Tali in our train but two remained—Roux's mule man Chantzeu, and his assistant Fa, a strong, well-conducted lad whom we had taken on at Ssumao. The new makotou was a big, seasoned fellow, about forty years old, who talked little and worked hard, and neither drank nor smoked. Under him were seven mafous, some of them Christians.

The interpreter was also a Christian, furnished by the Fathers. It was a matter for astonishment to find in this out-of-the-way spot anyone who could act in that capacity. It was still more so when I add that Joseph spoke not a word of French. He was what the missionaries termed a "Latinist." Brought up and taught from early childhood by the Fathers, he had learnt Latin, and even studied philosophy. But not feeling a call for orders he had married, and became, like many of his kind, a trader, setting up a small store with his father-in-law. Never, in all probability, did he suspect that his acquaintance with the language of Cicero would be lucrative, any more than, I am free to add, I had myself thought to derive direct advantage from the many painful hours erstwhile spent over the *Catilines* or the *Aeneid*. At first, intercourse was not easy. Our oratorical attempts were hardly brilliant; there were even times when we were not in touch. By degrees, however, we gained fluency, and in a month had completely mastered each other's idiosyncrasies of expression. But what Latin! *Horresco referens!* Solecisms, barbarisms, neologisms, all the "isms" invented might be applied to our jargon. Luckily, we had only ourselves for audience.

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Eulogy on our interpreter would be premature here; his merits will appear in the course of our travel. Suffice it to say that Joseph proved himself a man of sterling principle, integrity, and courage, and that as each day advanced he became not only our devoted servant but our friend.

All being then ready, on the afternoon of the 14th (June) we set forth. Our course was still west by a road leading to the Mekong. Once on the banks of the river we should have to seek a way up the valley. The actual start was a lengthy proceeding; each of our men had a last word to say to a parent or friend. But at length we got away.

Five hours later we parted from the Fathers, who convoyed us so far on our way. It was not without real regret that we said good-bye to these brave fellow-countrymen, whom we should in all human probability never set eyes on again. The pang was a mutual one. We might hope to see our country within a few months; they, never. It must have needed some fortitude to face that word—above all, in China.

We proceeded along a paved causeway between the mountains of Tsang-Chang and the lake, and we did not emerge from the hollow during the first day, which closed on us in a clean little Minchia village. On the next we continued to skirt the lake, which narrowed towards the north, until it ended in a mere reed-bordered channel, up which some boats were being poled. The swamps stretched farther, diversified with hummocks; it seemed as if the lake proper, the basin of which was clearly defined by the hills, must once have been more extensive. The alluvial land of its bed, scarcely above the level of the water, was cultivated with rice; and many a hamlet and clump of trees appeared from the verdant surface; the vista recalled some

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corners of Normandy. Passing Chang-kouan, which forms the northern gate of the valley, we stopped at Teng-chouan-cheou, in a pagoda where we were pestered by crowds of inquisitive idlers.

On the 18th (June) a sparsely clad ascent brought us to a col at an altitude of 9,035 feet. We were in the midst of Alpine vegetation; asters, orchids, edelweiss, etc., abounded. The air was fresh and invigorating. At our feet was spread a wide and well-tilled vale, the rice-fields like a draught-board below us, and the villages grey specks edged with green. Throughout its length a river traced a sinuous course with a dark riband of trees. The *coup d'œil* was striking, and issuing as we did from brown and rugged hills we could hardly repress an exclamation of delight. Rarely had we seen fertility so fully turned to account. Save where small dikes defined the boundaries of the fields, no single rood of ground was lost. Upon the distant hills a few white scours showed like beacons over the valley. Down on the level a group of peasants might be discerned round a minute oriflamme, lightening their toil with the sound of flageolet and gong. When we descended to the river we found its waters rapid and clear beneath a fringe of willows, and the irrigation was cleverly controlled by intersecting runnels.

We crossed the valley by a paved road at right angles, and came to the Minchia townlet of Fong-Yu (two thousand or three thousand inhabitants). I noticed the peculiar head-dress of some of the women, consisting of a close-fitting little black hood with silver ornaments in front. Their hair was looped to cover the ear,—one might have supposed they had got the latest mode from Paris,—and this style seemed reserved for the young girls. To see them at work in the fields in their skull-caps, little jackets, and trousers revealed by the tucked-up skirt, they might have been

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taken for boys. The older women wore the black turban, Chinese fashion, covering the hair knot. Amongst these folks one met with some pretty faces and more regular features than the Chinese. The men, on the other hand, differ but little from the latter.

Despite the fact of the doors of the inn where we lay being closed, they shut in a swarm of people, and our repose was broken by the incessant going and coming of the "members of the family," as they explained to all our grumbles. To such an argument there was no rejoinder: yet what a family! *Certes*, there is no fear of depopulation in this country yet awhile.

It took us five days to reach the Mekong from Fong-Yu along a rather uniform road. A second hill similar to the last we had climbed, and then on the 20th we found ourselves by the river Yang-pi, which we had already crossed before Tali. The stream here was spanned by a hanging bridge on eight chains fastened at either end to a white stone. At the bridge head was a platform, and on it a recumbent stone buffalo, sole guardian of the spot, as if watching the rush of water with a placid air. Near the Yang-pi we for the first time fell in with some Lissous, a tribe of mountaineers renowned in China for their fierceness. We were to have more to do with them in the future. These representatives were swarthy, and wore a broad straw hat like a panama.

On the 21st (June) we traversed a wood, threaded by green glades. The country had few inhabitants and little culture, merely an occasional patch of corn or buckwheat, but the vegetation was luxuriant and the shade grateful. White dog-roses scaled the trees and drooped in fragrant clusters over dazzling diadems of lilies of the height of a man, and under

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foot pink primulas made a gay carpet. The enjoyment of these cool forests in contrast to the turmoil of the inns was great. On the 22nd as the wood thinned the villages increased, and we came to some salt pits at Tien-eul-tsin. These we inspected before our departure. The rock-salt is obtained by means of shafts about 65 feet deep, and is drawn up by a double bucket.



Hanging Bridge over the Vang-pi.

The slush is then tilted into a trench, which conducts it to large stone vats, whence it is again transferred by hand into wooden receptacles. A Chinese overseer at a counter checks the workmen as they issue with their dripping loads. The next process is to heat the mass in small coppers placed on kilns (called tsao-fang, of which there might be about sixty in the village), and the residuum is blocked in spherical wooden moulds. The

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measure thus obtained is 2 lbs., Chinese, eight tsiens. A pound is worth thirty sapecks. The salt is sent to Teng-Yueh and Yung-Tchang, but does not go to Tali. Work is only carried on for seven days in a month, and about 3,000 lbs. of salt are despatched in that time. The workings are common; anyone can share in them by paying to the mandarin a rent, which varies according to the number of labourers.

As we left Tien-eul-tsin we noticed pagodas on the hillside above some rocks, on which were engraved inscriptions. In the middle of them appeared a figure of the goddess Khou-an-yn, in the pose of a madonna with flowing drapery: the head was in profile, with a hood encircled by an aureole. Similar designs exist in Japan. Farther on we passed another salt-mine village, from which arose columns of smoke, before coming to Yün-long-cheou, a town only by virtue of its administration. The mandarin, who entertained us, had a garrison of but thirteen men. Here we were on the bank of the river Pi-kiang, which flows from the mountains of Likiang into the Mekong at two days' distance.

The directions furnished us as to the route to follow were vague. They were to the effect that we ought to reach the Lan-Tsang-kiang (Mekong) in two days, and should be able to cross it by a bridge. But on the other side we should find ourselves in the territory of the "barbarians," according to Joseph, and with paths impracticable for mules. The approaches to the Salwen were regarded with dread. A local proverb says, "He who would cross the Loutze-kiang should sell his wife before he starts." Our men did not seem to make any actual demur to going forward; they doubted our persisting to any distance, but, on our attempting to procure an extra mafou for three more mules we had bought, we found it impossible to induce

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anyone of the district to follow us farther in a westerly direction. One of our other mafous prepared himself for all eventualities by offering to the gods in the pagoda where we were, rice, tchaotiou, and pork, and by burning candles before the two altars with repeated prostrations.

From Yün-long the route ascended over a low shoulder into a wooded and turf country, in which we passed through a Lolo and Minchia village of long arched dwellings. Straw was drying in the yards stacked on horizontal bars in layers to a height of 19 feet, and covered by a small pent-roof. As the village was crowded with another caravan, we encamped beyond in a fir-grove hard by a torrent, and enjoyed the seclusion and magnificent prospect at a height of 7,800 feet. This enjoyment would have been more generally shared by the rest of our troop could they have divested themselves of some foreboding for the future. Only that morning, in conversation with Joseph, I had learned of a road which branched northward from the bridge over the Mekong. "But," said he, "we must not think of taking it, because there's sickness in the district; because the mountains are stupendous; because, in a word, the Lissous are there!" I was content to abide the issue, and let them talk.

The 26th (June) was very hot, and the glare from the slaty rock trying; but in the afternoon we came in sight of the muddy Mekong, and presently joining its course, turned up the left bank. The volume of its waters that came tumbling down with tumult and in waves shouldering each other as if panic-driven strengthened our previous conception of its force. We found the bridge a little farther; it was merely a footway on chains between two stone piers such as we had seen before, with the river forming a boiling rapid underneath. The bridge

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itself was sixty-six paces in length, but, reckoning from the edge of the wood where the piers commenced, the width of the river at this point was about seventy-six yards. Going northward up stream this is the last bridge on the Mekong before those which span the two arms at Tsiamdo, on the main road between Pekin and Lhaça. After crossing the river a large gateway confronted us, through which we entered the street of the village of Fey-long-kiao. On either side the regular white buildings with their grey roofs, backed by the darker hills and coffee-coloured water, imparted quite a charming air to the place. Within, it was the same as other Chinese towns, squalid and dirty, like a woman who hides the ugliness of age beneath a showy dress.

We put up in a room above the gateway, reached by a narrow ladder stair. The basement was given up to idols. But instead of the tawdry images we had grown used to, with grotesque features staring at you in ranks like dolls at a fair waiting the day of destruction, I was astonished to find myself before deities of a much more venerable aspect. On the right was a little old figure, with a cowl like a monk's upon a gilded head adorned with a flowing white beard. He reminded me of Father Christmas. In the middle of the altar was another, indistinguishable save for some traces of a former gilded splendour in the dark wood of which he was graven. At the feet of the large ones were minor divinities, or they may have been priests, in a sort of cassock, and black with age. These austere gods seemed to watch with the same air of immovable disdain the damage of the wasting years, while the river without repeated in its ceaseless roar the unchanging tale of centuries which rolled before their feet.

Naturally, our first care at Fey-long-kiao was to put questions regarding the route. The replies were uniformly discouraging.

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"South-west there were roads leading into Burmah,"—thank you for nothing. To the north?—There was but one, and that ascended the left bank of the Mekong. But in proportion as they insisted that it was impossible to travel by the right bank, that the country was impassable, perilous, peopled by savages, so our desire to make the attempt increased. The farthest Chinese village was two days' march north-west of Fey-long-kiao. We would attain that, and then it would be time to see what more could be done. Anyway, I was determined to go on till some more real obstacle than the fears of our men should stop us.

As predicted, it took us two days to reach Lao. We went up by a fairly good zigzag path over the chain that divides the Mekong basin from that of the Salwen. The first night we halted in a hut about 1,000 feet short of the summit. We were astonished to find here Manhao, the mafou who at Mienning had stabbed the makotou. He related that the latter, recovered of his wounds, had gone back to Mongtse with François, and preferred a request to be taken back into our service. It may be imagined what reception I gave to one who had proved so ready with his knife. Throughout the latter portion of our ascent we were escorted by two soldiers, as a protection against attack from Lolo or Lissou robbers. I confess I placed more reliance in my revolver than in the cross-bow and trident which formed the armament of our warriors. On the col I remarked on either side of the path a row of small sharpened bamboo stakes buried in the ground to pierce the bare feet of possible brigands. The Moïs of Annam use a like method of defence.

We dropped down into the Salwen basin between wooded hills that sheltered rare hamlets. Round them the fields under cultivation were fenced with palisades of interlaced bamboo against the

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incursions of wild animals. The fauna of the mountains was rich in deer, chamois, monkeys, and wild oxen, but we heard of no tigers.

We stopped at Lao, where the gaping crowd of Chinese had a more cut-throat look than usual. They could give us no clearer information than at Fey-long-kiao. One route led to the Salwen, which they called the Cheloung-kiang, but it was not possible to go farther north because of the *jejen* (savages). We resolved to see for ourselves, and next morning moved off slowly, for it behoved us to be patient with our mafous, who, though tired, were performing their work well. The way wound up the defile of the torrent we had begun to follow on the day before ; brushwood and boulders obstructed the passage, and the mules had to pick their footing cleverly among the treacherous shingle. At sundown the column was checked for half an hour at an abrupt landslip. The makotou, who had been in advance, came back with the news that the path was choked by a mass of rock, and that several of the animals had rolled down the slope. As night was approaching, we camped where we were, on a bank of shale. Above, the mouth of the gorge was dimly outlined against a triangular patch of sky, and the dark bushes that lined the channel were lit with dancing fireflies. The men beneath the sheltering pack-saddles talked together in low tones by the glare of the fire till far into the night, while without the circle of light the shadowy forms of the mules moved or lay among the reeds. Little by little silence fell over the camp, and the echoing torrent alone broke the stillness.

Apart from the arduous nature of the road, the day had offered little of incident. We had sighted some natives fishing down stream with bamboos, to which a bunch of worms was tied ; they thrust the rod under the large rocks, and netted the catch in an

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osier basket with the other hand. The fish thus landed averaged about 8 inches long, the breast and belly were broad and the head flat, with a wide mouth like a dog-fish. The flesh was palatable.

It was on leaving the shingle camp that the real struggle began against obstacles more formidable than we had yet encountered. The path got worse and worse, and the men had to precede the mules, pick in hand, and break a track across the shoot of rubble and loose stones. By this means we won a precarious foothold, though in some places the projecting crags thrust us out over dangerous declivities. Stepping cautiously in Indian file, we escaped any worse accident than the fall of one mule, which luckily recovered itself unhurt.

The valley flora was unlike that of the 5,000-feet plateaux we had traversed. Here the trees had dense foliage, their lower boughs often covered with fruit; acacias grew close, and fig-trees smothered in gigantic creepers and a broad-leaved moss. On every side were orchids, and ferns with spiral fronds twining round the central stem. The prolific forest teemed with plants of rare grace and tropical profusion. But its sunless depths and rank undergrowth exhaled miasma and a fever-laden moisture; so that, although the temperature was not high, we perspired in the damp heat at each heavy step, and breathed a tepid vapour that made us believe the reputation for insalubrity given by the Chinese to the valley of the Salwen.

Our camp of the 29th (June) was still by the torrent. Our men had exhausted their provisions—a lesson to them to be more provident, and to attend to our orders that they should always carry three or four days' supplies. Fortunately, we had a ham and some rice to share with them. In the morning, as I went to bathe in the river, I discovered a liana bridge swung from

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two mighty trees, a tight-rope dancer's line above the flood. A wild-looking being was just about to step on to it, emerging from I know not where. At sight of me he stopped short in startled amazement; then abruptly faced about, and, scrambling down the left bank, plunged into the reeds and disappeared. The whole scene called up before me descriptions I had read of travellers in South America, and I pictured myself in for an adventure with those ferocious savages of Aymard, who with snake-like glide and stealthy bird-call creep upon you unawares. Putting aside fancy, it seemed like enough we should make acquaintance with savages. We were now in really undiscovered country: no European had ever hitherto penetrated so far.

It was near noon before we debouched upon the valley proper of the Salwen, the gradients of the sides being less steep than those of the Mekong. The Cheloung-kiang, Lou-kiang, or Salwen, as it is variously called, flows at its base in an average breadth of 120 yards; its waters are easily distinguished from those of the Lan-tsang-kiang (Mekong), for while the latter are reddish brown, the Salwen's are a dirty grey. At the point where we struck it the current seemed less rapid than the Mekong; the temperature of the water was 66° Fahr. The level of the Salwen is only 3,087 feet, or 1,625 feet lower than the Mekong. Without admitting a shallower depth than is the case, it is difficult to believe that so great a body of water can issue from so short a course as that indicated by the latest English map of Thibet, published in 1894. The impression we derived was of a large river coming from far.

We ascended the valley by a well-defined path to the neat village of Loukou, built after the Chinese model. It was girt with maize-fields guarded by palisades or mud walls. The



Briffaud on the Liana Bridge.

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population consisted of Chinese, Minchias, and Lissous. The natives are ruled by a Lissou toussou. This magnate, after an exchange of cards, invited us to lodge in his house; but we preferred the open plain outside the village, as the search for some missing mules necessitated a halt of two days instead of one. We made the toussou a present of a handkerchief, some pictures, and a box of powder, and he paid us a visit, dressed in white and with his hair long, a sign of mourning. He was a half-breed, with more of the Chinese than Lissou in him, and of much intelligence. His family had migrated hither from Setchuen with the coming of the Mings. To his official occupation he added that of a trader, with thirty mules and six men employed in the traffic of salt from Yün-Loung to Yün-tchang and Teng-Yueh. This toussou knew the district well, and gave us useful information beyond our expectation. He said a path, which though insignificant was practicable, went hence in a northerly direction. It was confined for several days to this valley, trending first towards that of the Mekong and afterwards back on to the watershed between the two. The route scaled one high mountain, but without snow. For eight days' journey we should find subject Lissous, then for two or three the *jeju*, "qui reguntur a nullis hominibus et vivunt ut animalia," as Joseph put it. The friendly toussou promised us a letter to a neighbouring colleague, and provided us with a guide who would also act as an interpreter among the Lissous. This new member of our caravan, who likewise served as a mafou, was a tall, erect man, with a marked aquiline nose and straight-set eyes; in his copper complexion he resembled a Redskin. Among the inhabitants of the village we observed many who seemed to have little in common with the yellow race. One woman I

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noted: she was bronzed, with a projecting brow and arched eyebrows. Her eyes, instead of being lustreless, were deep-set and straight, and the underlid was fuller than those of the Chinese. Her nose was short, and wide at the base, and her face broad at the temples and tapering to a pronounced chin. Her whole countenance denoted greater sensibility and vivacity than the Chinese, and was nearer in its general aspect to the European type, reminding me of gipsies I had seen in Russia. She was a Lissou.

The toussou gave us particulars about other routes. According to him, there existed a path by the right bank of the Salwen, which traversed first a large watercourse known as the Long-Song-kiang, then the My-le-kiang, and ended in the Long-Tchouan-kiang. It was difficult to identify these rivers. This route was peopled by the Lansous, noted for the beauty of their women, and the Pou-Mans, who live not by agriculture but by hunting. We employed our rest in questioning the guide as to the tribe to which he belonged. I studied the Lissou dialect, which resembled that of the Lochais and the Lolos. By his account, the Lissous came here four(?) generations ago from Nang-king, which accorded with a similar tradition among the Lolos. Farther on we were to learn that the Lissous themselves spoke of a country where they had formerly lived, where there were elephants. They must, then, have come from the south.

Our mules being all collected by the 4th (July), and our men rested, on the morning of that date we again moved forward. For the whole of that day we were in the Salwen valley; now above, now beside the river. Few people were to be seen, and little cultivation; rice, maize, and cotton in flower, which must be annual, as the plants were little more than a foot high. In

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all directions were strewn limestone fragments amid scanty herbage, with here and there a cactus to give the scene a likeness to Africa. The river alternated between broad reaches lapping sandy bars and foaming rapids like the Mekong. The spectacle formed by the misty spray of the cataracts was grand in the extreme. The Salwen bore down on its bosom large trunks of trees which, caught in the eddies, or held in the backwaters, accumulated in every creek. The water had begun to rise.

We continued on the 5th (July) the ascent of the same well-wooded valley, passing a Lissou village, Oumelan, where the house-walls were chiefly composed of horizontal logs, to which were hooked wicker hen-roosts, and small wooden shelters for the pigs ; the lofts were raised upon piles. On one post I perceived a coarse white drawing of a quartered bird, no doubt intended, as among the Hou-Nis, to ward off evil spirits. To our request for chickens, answer was returned that there were none. As they were running about in all directions, some moral suasion, backed by money, was required to overcome the scruples of the owners. The site of our camp would appear to have been a common one for wayfarers from the smoke-blackened rocks. We were in a clearing beside a leaping cascade ; behind, on the slope, rose a monster tree, whose roots served as an arbour, and whose twigs made our couch. In one corner Nam established his kitchen, by the light of a lamp of antique shape ; a little farther Chantzeu, curled up among the roots, sought oblivion of the world in opium ; below, the mafous were stretched beside the packs. Under a white covering Sao nodded over his pipe, and as he dreamed of the palms of Tonkin probably consigned the whole celestial race to perdition—a sentiment which I could cordially indorse. By the water's edge some logs from the mafous' fire still flickered, showing the philosophic Fa coiled in a

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hollow tree which he had selected for his bed. The mules were allowed to stray among the scattered herbage, under the guard of three mafous, who, having fired their pieces into the air to scare the wild beasts, straightway went to sleep. We slumbered under the protection of the gods, in the shape of three painted images on a stone in a niche, before which remnants of egg-shells, feathers, and a few white rags fluttering on the bushes bore sacrificial witness to their holy character. We felt almost as barbaric as their worshippers.

Heavy rain woke us in the night, and did not abate with daylight. We were now entering the rainy season, and had a pleasant prospect for the next few weeks.

6th (July).—Still threading the Salwen valley. We passed out of the jurisdiction of the toussou of Loukou into that of Ketsouy, a miserable village, where actually the chief was absent. But his wife attempted to supply his authority with considerable urbanity, and sent us eggs and goats gratis. *Apropos* of toussous, we learned that the dignity is hereditary, and in default of direct heir a successor is chosen from among the other members of the family. As in the province of Yünnan, he receives rents from his subjects, but nothing from the Chinese Government. Every year he must remit an impost in kind, or some articles of value, to an itinerant Imperial functionary, or attend in person at Tali for the purpose.

Another day on the 7th (July) of the same work, up hill and down dale. The valley was tortuous, and we were occasionally high enough to get superb views; the course presented similar bold features to those of the Red River. The ridges dividing the tributary gullies were of limestone origin, and scarred the face of the valley with crags and cavities, often encroaching on the bed of the stream with grey seamed brows draped with bushes. But the clouds

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hung low and hid the peaks. The conditions were unfavourable to photography, and we passed, a draggled train, through the Lissou village of Oua-ma-ti, where the men wore their hair in pigtails and the women in two small horns above the ears. The bad weather lent our troop a strange appearance.

Sao's get-up, a motley of European and Annamite equipment, was highly grotesque. On his head was a wide Chinese straw, on his body a shrunken blue jacket made in Tonkin, and on his legs a pair of my old pantaloons. The shoes and gaiters I had given him made him a groom in his lower extremities, while revolver, gun, and bandolier transformed him into a soldier above. Add to this the scientific

air lent by my photographic apparatus on his mule, covered with a yellow mantle, and at a distance it would have been hard to say what he was.

Stress of weather made us glad of the shelter of a hamlet called Lotsolo, in the midst of maize and indigo culture. Here the men



Lissou Woman.

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wore Chinese garb. The women had a dress with parti-coloured sleeves, an armless waistcoat, blue with minute white checks and a brown border, and an apron and broad sash. Their costume was completed by a turban of, in some cases, a blue and red scarf, fringed with cowries. Almost all had small coral ear-rings, said to be peculiar to these Lissous, who were known as Koua-Lissous (Lissous of colour, cf. back, Koua-Lolos), in distinction from the Ain-Lissous of Loukou. Some of these women were not bad-looking. One girl we caught sight of with quite regular features, and in the morning she was induced for a few needles to parade for our inspection. She answered to the gentle name of Lou-Méo.

At Lotsolo we met with a good reception, and I began to feel quite friendly with the Lissous, of whom we had heard such alarming accounts. I went into one of their houses, and found the occupants squatted round the fire warming tchaotiou, a rice spirit of which they are great connoisseurs. They had never seen a Yangjen (European) before, nor yet mules; our arrival therefore was an event which they celebrated as a fête. They invited me to drink, and we observed a custom here which we met with farther on. Two people quaff together out of a two-handled bamboo vessel. Each holds one handle and incites the other to imbibe more than himself. This mutual loving-cup is regarded as a pledge of amity and alliance. In answer to my questions, the natives could not recollect hearing of their tribe having come here from elsewhere. They knew the Lolos possessed a writing, but they themselves had none. A curious marriage custom is observed among them. The wedding feast over, at nightfall the betrothed retires with her parents into the mountain, and the swain has to seek them; which quest successfully achieved, the parents withdraw, and the newly-wedded couple remain till morning upon the hillside,

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when they return to their homes. They have to repeat this ceremony for three nights before they may settle down. This custom naturally precludes any marriages during the rains. They admitted in confidence that the bridegroom was generally in the secret as to the direction in which he might find his party. Joseph recounted a like custom as prevailing among the Lolos of Lower Yünnan in the neighbourhood of the Yangtzé.

On leaving Lotsolo we at last quitted the valley of the Salwen for one of its affluents, by a slippery path, which often called for the services of the pick. A light rain continued to fall, and I pitied the mafous, whose toil was severe. To add to our discomfort at night we were tormented by clouds of mosquitoes, that effectually murdered sleep.

On the 9th (July) we held on our upward course. The men, accustomed to fine weather, seemed down-hearted, and scarcely one of them was capable of good collar-work, so that they loaded up in dejected silence, which boded ill for the harder times yet in store. Some distance from our camping ground we came on a really bad bit of path, where we had to scale a veritable rock stair. It took three mafous to hold up each mule, and one of the latter having been arduously hauled to the top, took it into his head to try and re-descend. He lost his footing, and in a moment was rolling head first down the declivity with his load bumping at his sides. The fall looked fatal, and we made our way to the bottom of the ravine, expecting to find him in pieces. There he was, however, miraculously sound, save for some cuts and scratches. The example seemed contagious: first one and then another went down, till four had followed suit, and we began to wonder if it would be our turn next; it was perilous to stay in a valley where it thus rained mules. We had to turn

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all hands into mafous, ourselves included, and by dint of great exertions, and forming a chain to pass the scattered contents of the packs from hand to hand, we eventually picked all the cases out of the bushes and torrent and got them to the top, where we were rewarded by finding that the rest of the animals had strayed into the woods; where most of them passed the night. These contretemps meant a short stage and much grumbling, hardly allayed by a ration of tchaotiou. The next day was therefore devoted to a rest, and to preparations for climbing the mountain which reared itself before us. We also got out our thick clothes, for it might have been winter, and we longed to reach a less rigorous climate.

On the 11th (July) we made an early start, as the ascent had been described to us as hardly to be accomplished in one day. Also our guns and carbines came out of their cases, in readiness for the savages who were said to be likely to assail us half-way.

The road at first entered a forest, and though the gradient was steep it was less severe than I had expected, and the mules got on fairly well. The woods were beautiful, and reminded me of some parts of Thibet; the mighty boles were hidden under a coat of moss, and the long grey beards that hung from their boughs seemed a mark of venerable age. At the base of some we found small altars formed of branches, erected by the superstition of the Lissous to ward off evil spirits. As we mounted, the trees grew more stunted and gnarled, and presently gave place to lean bamboos overtopped by Alpine larches. Here and there I was surprised to notice fine magnolias side by side with the red and white bark of the wild cherry. At the end of four hours, during which, notwithstanding the prevalent moisture, we had not found a spring, we came out upon the grass of the summit.

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We had ascended so far faster than we had anticipated, and without hindrance from other sources than those of nature. A report had spread among the Lissous that we were devils, and so we were respected. On the col we were at an altitude of 11,463 feet, and astride the watershed between the basins of the Mekong and the Salwen.

The pass as well as the mountain is called Fou-kou-kouane, in Lissou dialect Lamakou, the "Gate of the Tiger." A post consisting of a few Lissous dignified with the name of soldiers occupied a bamboo shanty, ostensibly to ensure the safety of the route, which was further guarded on either side by the buried bamboo splinters before described. The crest was marked by scarred and jagged rocks, amid which the track led on to a small plateau covered with long grasses, where the rich flora testified to a constant dampness. I saw two beautiful species of lily, white and red, myosotis, yellow ranunculus, sage, and several kinds of orchids. We did not find here the short grass usual on high summits, nor any gnaphalium. We pitched at the head of a green slope on a narrow shelf overtopped by a big rock, from which, when I climbed it in the rain, the caravan was so entirely hidden by the high grass that no one passing within thirty yards would have suspected that the grey mass sheltered fifteen men. The weather was execrable; we were in the clouds; the thermometer stood at 50° Fahr., and it was hard to believe it was July.

Next morning the men were depressed; they had no idea of bearing up against external influences, and the route was resumed in silence. After proceeding a short distance we came to a stream running into a pool, whose rim lipped the base of a cliff. Taking it as a guide, we turned aside, and after a few

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steps found ourselves confronted by a stupendous wall of black and grey seamed rock, which stretched above us and below. The rivulet, leaping in cascades from stone to stone, bored through a fissure in the scarp, and disclosed a recess in shape like the prison of Dionysius' Ear. Peering into the entrance, we discovered a vaulted cavern, under which the water ran over a bed of white pebbles. Scared by our intrusion, birds of blue plumage flew out into the retreats of the mountain. The spot had an air of wild grandeur, which suggested some subterranean home of primitive man; but here was no trace of humanity. In China such a cave would have been decorated with statues of Buddha. Instead, the adornment was by Nature's hand: grey rocks strewn upon verdant mounds, thickets of shapely rhododendrons, larches with their horizontal boughs dark below and vivid green aloft. A veritable faëry ring, and spot of witchery; the scene it might have been of some Walpurgis revel, with its environment of high mountains, deep woods, and quaint rocks, with the chasm dimly descried in the mist, and over all a sense of awe.

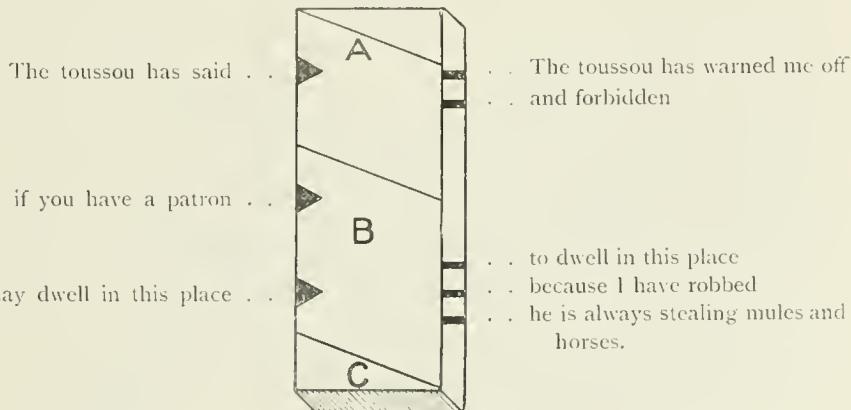
From here the route was a descent; at intervals posts, with cross pieces marked with notches, indicated the whereabouts in the undergrowth of the sharpened stakes, but these in the dark would have been invisible. As there is no writing among the Lissous, they adopt the following method of conveying their messages or transacting business:—For a contract between two parties, they take two bits of wood about 12 inches long by $1\frac{1}{2}$ inch wide, care being had that they should be identical in all points, and cut on each face a similar number of notches, generally a little larger on one side than the other. The “*mouké*,” as the Chinese call this tally, is thus a reminder. Each notch signifies a word or phrase. In cases of

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an agreement made before witnesses, should one of the contracting parties break a clause, the other may call upon him to produce a "*mouké*," and verify it in presence of witnesses. If used as a letter, the messenger must repeat the meaning of each notch. Here are two examples:—

No. 1 "*mouké*" has reference to a Lissou custom. A thief has been expelled from a village; a residence is assigned him under the patronage of someone who will be answerable for him.

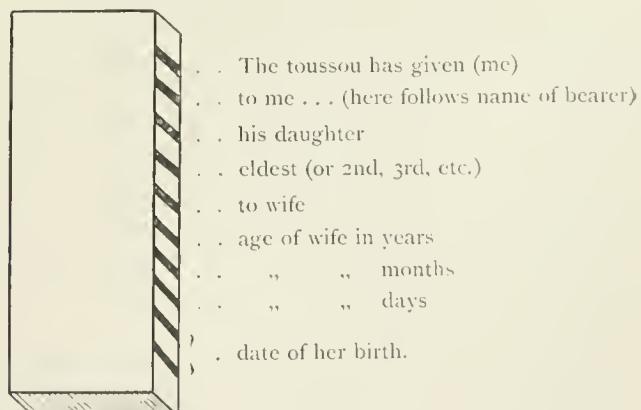
"Mouké" (1)



A and *C* are spaces on the board representing the arbitrator.

B represents the patron.

"Mouké" (2).



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After this digression let us resume. In the afternoon we entered woods of pine and holm oak, the latter a speciality among the trees of Thibet. At night the men made a great fire, for there was no stint of fuel, and a picturesque oval-shaped camp was formed round it, while we took a long rest before the morrow.

13th (July). — Descent continued; we shortly sighted the Mekong again running in discoloured rapids. Coming so recently from the Salwen, it seemed small, and its valley more confined and less green than the latter. Hamlets, with a few rice-fields, began to appear, and near them large drying stacks like gibbets. We stopped in the Minchia village of Piao-tsen, surrounded by a white mud wall with half-demolished flanking bastions. When we entered the enclosure there were but few houses to be seen, and the ground was chiefly occupied by tobacco plantations. Here we were only a three-days' foot journey from Fey-long-kiao; but I did not regret the elbow we had made, since it had allowed of our exploring the Salwen, and deriving much useful information towards the solution of an important geographical problem.

At Piao-tsen we installed ourselves in a pagoda, and here we celebrated the Fourteenth of July with a sweet omelette and cigars. For eighteen days we had not seen what the Chinese term a *ta tifan*, or place of any size, and our regaining a little more comfort was the signal for four of our men to abandon us. I made no attempt to prevent them; our troop must weed itself out into the survival of the fittest for the still more arduous work remaining. Among the deserters was Chantzeu, a man who had been with us ever since Mongtse, and who had had less toil and more indulgence than the others. We had been

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particularly good to him, giving him more pay than he was entitled to; and yet here, in the prospect of increased labour, the ungrateful hound left us without even a word of parting. The makotou continued to give us satisfaction, and, after two days' suffering from what we at one time feared to be a whitlow, was now nearly fit again. The only fault to be found with him was



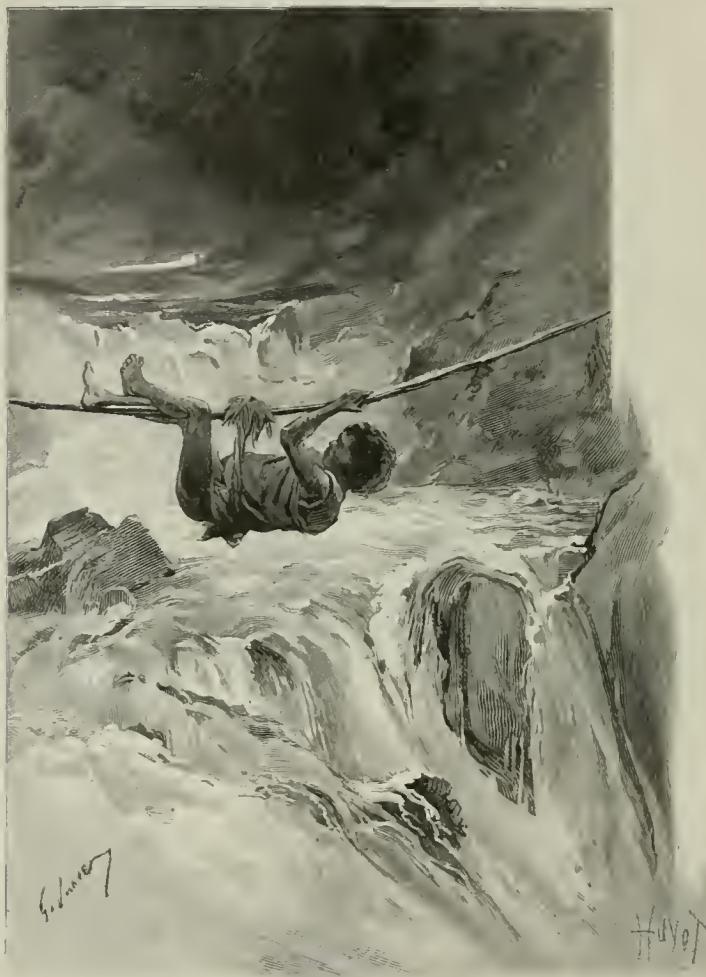
Attachment of Cord Bridge at Piao-tsen.

his inability to make the mafous obey him; when they refused a task, he did it himself.

The defection was supplied by four Minchias, and we were again able to set forward. As we left Piao-tsen we saw the first cord bridge over the Mekong. It was constructed of two hawsers of twisted bamboo, made fast to a stake on either bank, propped by big stones. For the crossing a small wooden saddle, called *liou-pang*, was attached to a running line (*liou-so*), and the person secured in it by leg and shoulder straps. It behaved

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you to keep your hands clasped on the saddle, clear of the friction of the rope. Once mounted and set in motion, it was a slide down one side, and a pull and scramble up the other by



Mode of Crossing on a Single-line Bridge.

hands and feet. In some narrow channels there is a double cable, and it may be done at a single rush. But at Piao-tsen the crossing took a quarter of an hour, and a considerable expenditure of energy.

We held on our way up the right shore of the Mekong, and

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this continued for more than a month. The scenery in the valley was remarkable. In one bend, where there was opposite a small military outpost, the red-tinged river made a regular series of serpentines, above which the path clung to the cornice of the cliff, whence we looked across to a barren mountain-side streaked with many-coloured strata, like a painter's palette. This blending of desolation and rich tones was the despair of the photographer. It reminded me, as well as the others, of certain aspects of Africa.

In the evening Joseph explained to me the meaning of some little withered firs we had noticed stuck before the houses. The tree is planted on the 1st of January as a sign of gladness, and is supposed to bring luck and money. They call it *lao-tien-chon* (the tree that shakes the sapecks). This Chinese custom recalls the European Christmas-tree.

On the 15th (July) we halted in a village called Tono. The inhabitants designated themselves Tonos. This was a tribe we had not yet encountered. Their dress was Chinese; but their eyes were wrinkled and their faces wider than the Chinese. Questioned by us, they professed to be the only ones of their clan, and that their ancestors had come here a long time back; their dialect was akin to the Lissou. Their reception was friendly, but their information untrustworthy: according to them it would be impossible to proceed with mules on this side of the Mekong. As only that very morning our caravan had by making a détour successfully circumvented an apparently insurmountable obstacle of projecting rock, we were not likely to be deterred by their reports. Before quitting the Tonos I took a few photographs of the crowd that surrounded us. I have rarely seen a collection of types so hideous: the group might have stood for models in a picture of criminals in Hades.

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Squint-eyed, goitred, toothless, here a wen and there a tumour, no single deformity was lacking for the caricature. The very children were horrible. One little object waddled alone; we gave him a handful of rice; he retreated gravely, turning from time to time towards us a bulbous head with bulging eyes—a perfect little monster. A hoary old man with shaven pate, deprived of his queue, leaned his fleshless claw upon a crutch, and watched us with a fixed regard, half hidden by his overhanging lids. His nose touched his chin, and he was microcephalous. We did not linger among such a repulsive company. For a new tribe it was a very disreputable one.

17th (July).—The march was without incident yesterday and to-day, always skirting the hill or the river, into which one mule fell, but a few blows with the pick given by the makotou in advance generally rendered the passage wide enough for the animals. On the next day we had to engage four or five villagers to help our men; our gang thus beginning, without remuneration from the Imperial Government, the hard labour of road-making which was to continue for a long distance. We met some Pé-Lissous speaking the same tongue as the Ain-Lissous, but seeming less of Chinese. Joseph said that the Pé-Lissous are pure bred and indigenous. Men and women alike were swarthy; the former clad in a long white overcoat embellished with sort of epaulettes, descending to the knees and often fitting close to the figure. Some among them had long swords with straight blades wide at the end—their only dangerous part; they carried them in a section of a wooden sheath. The women were often naked to the waist and of statuesque proportions; they had a little hempen skirt and a Chinese cap decked with cowries and round white discs, which were said to

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be brought from Thibet, and looked to me as if cut out of large shells. The greater number of them wore collars of plaited straw, mother-of-pearl, agate, or red and blue beads, apparently of English manufacture. Both sexes always smoked pipes. The Lissous are very fond of tobacco and spirits. I noticed several of the men and even one woman with an earthen flask slung round their necks, from which they constantly took a pull; the result was to make them very loquacious. I thought of the probable effect on these ignorant people of the introduction of civilisation with its vices; and what a fine field for extermination with bad whisky the English would have among them, as with the Redskins of North America in the past.

We camped near the village of Tatsasu, having been hindered by an incident on the way. A pallid, evil-looking individual had persisted in dogging us, and made an attempt to turn one of our mules aside into another path, with the probable intention of stealing it, when the makotou and Joseph detected him and promptly haled him off to the headman of the village. But that functionary would have nothing to do with the matter, so they brought the culprit back to camp, and we ordered him to be bound. Fa surpassed himself in the job, and trussed him up like a bale, with his hands behind his back and a guy-rope to his pigtail. While this human bundle lay upon the ground, an old man appeared from the village and claimed him as his child. After some discussion we yielded up our captive to him, with the promise that if he crossed our path again we would heave him over the edge without fail. The aged parent placed his inert offspring on his shoulders, and thus loaded hobbled off to the village.

Tatsasu is a dependence of Li-kiang, and is governed by two chiefs—a Minchia and a Lissou toussou. They sent us

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rice, eggs, and a packet of tobacco, which was a great gift for them, and a small flask of tchaotiou. The last was protected by a cover of finely-plaited hide, very secure.

After Tatsasu the road became worse again. We thought

regretfully of the comparative ease with which unencumbered horse or foot men with porters would accomplish three times the length of our stage in a day. A single rock would sometimes cause an hour's delay or a mile of détour to our pack animals, with an unload and carry in between. On the other hand, the natives of this region, who had been depicted to us



"Eagle Beak."

in such threatening colours, proved willing to help for slender recompense. At this toil a big Lissou masou, engaged at Loukou, and whom, from his profile, we called "Eagle Beak," worked harder than any. Strong as a Turk, he always marched barefoot, and with tobacco and an occasional nip of brandy

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declared himself perfectly content to see new country. As for the last-joined Minchias from Piao-tsen, they were green hands, afraid if they went far that they would not find their way back, —“Sunt rustici,” quoth Joseph.

After every portage a rest was imperative; if we did six or eight miles in the day we thought ourselves fortunate. Nor was this valley of the Mekong anything but monotonous, with its arid slopes, grey rocks, pine-clad ridges, and everlasting murmur of the great red river in its bed. I found my distraction in observing the habits of our own men and of the villagers. In these parts we saw some variety in the female costume; a pleated skirt down to the knee, like the Lolos of Setchuen, a small blue and white apron, short dark blue broidered jacket open in front, and often a heavy turban in place of the little white disc'd cap. Not far from the village of Lakouti we were pursued by a ragged old man wearing a large necklace of brown wooden beads, to which were fastened a bell and a bronze medallion. This strange being stopped us with much gesticulation, and, falling on his knees, addressed me in a long speech with many queer interjections. He said the inhabitants were indigent Lolos (*sic*) from whom he could not ask anything, but that we ought to give him an alms. It appeared that the poor old mendicant was the priest of Lakouti. Religion seemed ill paid in this locality. It certainly was reduced to simple elements; for we learned that the Lissous worship Heaven and Earth, and have few rites.

In the evening we arrived near a little hamlet hidden in a hollow, from which the inhabitants, each uglier than the other, came out and prostrated themselves before us repeatedly. Our advent seemed to have greatly alarmed them. One of these Lissous bore upon his breast a cuirass made of bark bound round

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him by a sash. He was announced as a "brave,"—euphemistic for brigand, I imagine. As we set out, we noticed by the side of the path two posts with cross arms, joined by a chain of bamboo links, on the off arm a rough wooden bow, on the near one a sword; supposed to represent armed men guarding the village from sickness.

During the day we passed through the extensive village of Feoumoto. The inhabitants were Lamasjen, also called Petsen, with a dialect similar to the Minchia. Opposite, on the left bank, we perceived the little town of Yüm-pan-kaï, whose white houses and grey-gabled roofs bespoke it Chinese. Although connected with Feoumoto by a cord bridge, we preferred to keep the river between us.

At daybreak we discovered that two of Roux's valises, left uncorded near his tent, were gone. The thieves had also relieved Chantzeu's successor of a packet of opium, and—a far more serious loss—had abstracted from close by his head the theodolite. We found its case at a little distance. The "Doctor" was in despair. It was not the value of the instrument we regretted, but the impossibility of continuing his astronomical and magnetic observations. Our suspicions pointed to the villagers, who were prowling round the camp during the night. We summoned the headman, and promised him a reward if the things were restored, and threatened him with a complaint to Li-kiang in the contrary event. The inhabitants, meanwhile, remained placidly seated on a hillock watching us. In the afternoon we resolved to go in person to the village of Tchen-ki-oué. We went armed, and took with us Joseph and Fa. The chief replied, with some justice, that our arrival on the previous evening had not been formally notified to him, and that, in consequence, he had been unable to take precautions to guard us against robbers, with which the

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district was infested. Our sole chance seemed to rest in a sufficiently big reward; but against this was to be set their ignorance of European promises as opposed to Chinese.

After a whole day's delay, without any success, we had to go on our way. The theodolite was irrevocably lost before it could become historic. Poor theodolite! After having travelled to Yola on the Benoué and the Adamaoua; after having assisted in the French conquest of the Soudan; after being carried into Asia to complete investigations northward of Garnier's, it deserved a better fate than to become the pipe-stem or door-bolt of some miserable Lamasjen, or it might be the tutelary deity of a pagan village. Some future traveller may thus unearth it, and read in it the evidence of bygone French pioneers.

Before our departure, the chief came to assure us of his goodwill, and to console us by relating how a few years before Tchen-ki-oué had been pillaged by three hundred Loutses from the Salwen. Two of our mafous, whom we had sent over to Yümpang-kaï for stores, also brought word on returning that they had seen there the brother of the well-known Yangynko of Tali, who strongly advised us not to persevere on the right bank because of the *jeju*. We had had these savages held over us ever since Lao, and intended to believe in them when we saw them, not before.

After an uneventful march we halted near a wretched little wooden village, where at night the villagers asked our permission to dance and sing, which we willingly granted. The men sat in a circle and chanted a not unpleasing cadence in slow measure, of a semi-religious sound, each strophe of which was marked by a prolonged note, preluding an abrupt drop in the tone. As they sang, they threw their heads back and half closed their eyes in a state of apparent abstraction. We were the theme, it seemed,

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of their improvisation, in which they rejoiced over the advent of three distinguished strangers who could not fail to give them presents. With the entrance of several women, the scene became more lively, and our men, especially the big Lissou mafou, who showed a splendid set of teeth in his childlike glee, forgot their toils awhile. Meanwhile, the song gave place to a dance; the performers rose, the women ranging themselves arm in arm at the lower end, the men opposite them, each leaning on his neighbour's shoulder. They looked like groups in some grand spectacle, with a blazing pine log to do duty for footlights. Then the band began to wheel in circles, the male chorus keeping pace, and from time to time poising their step, while the women swayed their bodies in response. The whole scene reminded me of a dance of Thibetan women I had witnessed in the house of the chief Mussulman at Batang.

24th (July).—We made little progress—the path was so steep in places that it required all the art of our men, aided by natives, to overcome it. Eventually we stopped for the night close to a village said to be tenanted by *jejeu*. The inspection of a Chinese visiting card which they did not understand, and of our arms which they did, secured us a friendly reception. In the evening, while the inhabitants danced as on the preceding day, I questioned some of them. They were still of the Lamasjen tribe, ancient Minchia crossed with Chinese. All carried at their belt a long-stemmed pipe, a round tobacco-box, and a knife, and over their shoulders was slung a hide or string game-bag. When asked what was their religious creed, they generally replied with a laugh: "After death, all is finished." Nevertheless, two or three days subsequent to a burial they place a stone on the tomb to ward off the Spirit of the Mountains. Priests and altars there were none; they seemed

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happy to lead an animal life without beliefs, or punishment for crime other than the vengeance of the victim's kindred. Desirous of learning more about these natives, I invaded several of their dwellings. They were for the most part built of wood round a centre court, in which were the pigs. Within was a dais for sleeping, as in Arab houses. There were few implements visible; but one snare I noticed for taking pheasants, of wide meshes on a light wooden frame,—the men envelop themselves in straw and crouch in the stubble, and the birds taking them for rice-shocks are skilfully netted. Another weapon of the chase was the cross-bow, the arrows for which are carried in a quiver covered with the skin of the wild ass.

In the interior I detected no sign of any worship, but on emerging I observed under the roof a row of miniature bows and some joss-sticks. The occupants told me they revered Mazi, the Spirit of the Waters; Wousinkoui and Masimpo, two brothers who formerly fell into the water and became superior beings; and Tsomané, the Spirit of Evil. So that it would appear they are not such infidels as they professed, although they persisted in their disbelief in a future state, or any after punishment for assassins. This village presented a remarkable example of a community associated for the defence of mutual interests without any fear of final retribution.

Sickness was very prevalent in the district, chiefly fevers following excessive heat. Suicide was of ordinary occurrence. When a member of the tribe fell under the ban of his parents or his neighbours, he put an end to himself with a dose of opium. Monogamy is the habitual custom with them. At our departure they bade us beware of the eggs that might be offered us farther on; they are often rendered deadly by being steeped in poison. In connection with this danger I recalled a story told by the missionaries in

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Chinese Setchuen, of leprosy being often conveyed by the promiscuous feeding of the fowls in the infected localities.

Joseph furnished me with interesting details concerning the Lissou tribes. Among the Ain-Lissous both births and deaths are celebrated as with the Chinese. The Koua-Lissous on the occasion of a birth offer presents and felicitations to the mother. In China the days of each moon are designated thus :—

- 1st day by rat.
- 2nd „ „ ox.
- 3rd „ „ tiger.
- 4th „ „ rabbit.
- 5th „ „ dragon.
- 6th „ „ serpent.
- 7th „ „ horse.
- 8th „ „ sheep.
- 9th „ „ monkey.
- 10th „ „ fowl.
- 11th „ „ dog.
- 12th „ „ pig.

The Koua-Lissous regard the day of the horse as most favourable for burial; the Pé-Lissous always the day succeeding death. They plant a post before the grave, and hang on it the bow and arrows and wood of the plough of the former owner, and near them leave a bowl and a few sapecks, that the deceased may not be destitute of what was his in life.

Our halting-place on the 26th (July) was the Lamasjen village of Feou-tsen. While the unloading proceeded, I watched a stalwart girl who with open flowing white garments leaned her bare arms with copper bracelets on a stone, while she gazed intently on the work, impervious to the importunities of a goat that butted at her

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elbow. If she resembled Esmeralda, she too had her Quasimodo : a few steps off glowered a little wizen, bandy-legged old hunchback. Here was the foreground for a picture, the quaintness of which was enhanced by the grim surroundings whence we viewed it ; a lower apartment filled with biers transformed into tables, benches, and settees, in the midst of which our hosts obligingly described a few of their strange usages.

When the Lamasjens marry, the wedded couple live at first apart with their respective parents, and do not set up together for several years, or until the birth of a son. This custom also prevails among the Lolos of Eastern Yünnan. Again, if female twins are born, or two women in the same village each have a daughter on the same day, the man who in process of time courts one must also espouse the other,—their fate is regarded as inseparable. As amongst the Pé-Lissous, before mentioned, the implements of the defunct are placed upon his tomb, with the addition of a sapeck inserted between the dead man's lips—none other than the ancient provision of Charon's obol for the ferry. Here again the Lamasjens told us that they did not look to a future existence ; their burial rites would therefore seem only adapted from the Chinese without knowledge of their significance.

From an administrative point of view this region depends indirectly upon China through the medium of local toussous. The Imperial Government organises the jurisdiction of the latter in such a manner that it shall never form a compact circle but always be a segment. Whilst in China itself the mandarins are constantly changing at the will of the Court at Pekin, here the office of toussou, as well as that of headman of the village, is hereditary. On her borders China applies the system of central supremacy with a light hand, and, provided that the small tribute is regularly paid, does

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not look too closely into the doings on her frontier. And, on their side, the toussous are flattered to feel that they derive their authority from, and are recognised by, the Imperial Government. The natives generally regard the Chinese as riparian owners of the Mekong by right of superior race. Every year the toussou, or a delegate kinsman, makes a tour of office through the villages subservient to him, on which occasion each family has to pay him two taëls five tsiens of silver and five taëls of opium. In the villages directly subject to China, the chief has to remit annually an average of from fifteen to twenty taëls of silver to the authorities. He will probably put aside at least an equal sum for himself. With regard to the ground, the inhabitants have the right to till waste lands without rent or other formality, and conveyance of such is a matter for private arrangement.

On the 27th (July) and the two following days our journey was prosecuted with little incident but much toil. Rain had rendered the path slippery, and in places we had to shore it with trunks and re-lay it with branches. In the open we noticed vertical slabs of slate placed to keep off the monkeys, which are numerous and destructive. To add to the discouragement of the troop, several false alarms caused dismay among the mafous. A band of thirty men issued suddenly from the forest with pressing offers of assistance with the loads. At another spot Joseph had an apparition of a man armed with a long sword, who confronted him without speaking, and then vanished. These frequent scares made every countryman a brigand in their eyes: in ours, the natives, robbers though they may have been, were only very dirty and very repulsive; especially the men, for the women were often white-skinned, merry, and even graceful, though tattered.

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The dwellings were always filthy; we slept better in a passage than in the chief's apartment, which besides was littered with an assortment of articles such as grain bins, ears of corn, bows, bird snares, a broken matchlock, wooden spoons, a flail, bamboo-hooped buckets, and a kind of iron grid on which were kindled bits of resinous wood for light. Over the door there might be a white drawing of men on horses, though it required an effort of imagination to guess what the artist had intended.

In the woods which we traversed at this time the wild olive flourished, in appearance just like that of our own country; and here again after a long lapse we found specimens of the



Native Designs on Door Lintel.

palm or macaw-tree. How did its seeds find their way hither? The wild vine, plum, and hazel were abundant, also some excellent little wild apples in which we instructed Nam in the art of making compotes. The country itself varied little: on one side ran the Mekong at our feet, always yellow and muddy in a deep channel, and on our left towered above us the range that separated us from the Salwen, its savage peaks and skirmisher pines reminding one of the Dolomites of the Tyrol.

As the 30th (July) wore on the route became better, and by the evening of that day we reached a townlet which we had been told was of some importance. We found In-Chouan, as it

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was named, divided into Chang In-Chouan (upper) and Chia In-Chouan (lower), composed of a few scattered houses and the ruins of others. Nine years before, the chief of the place had massacred a neighbouring family. The Li-kiang-fou sent a mandarin to chastise him, who was himself beaten and robbed. Thereupon China despatched a column of one thousand men under the Li-kiang-fou in person, which killed the offending chief and his nephew, occupied the place for three months, and executed summary vengeance upon the inhabitants. The result was what we beheld. The blackened walls of the slain chief's residence afforded us a good kitchen, and in the moonlight the aspect of the bivouac among the desolate remains was weird. One might have taken it for a bandits' lair or a coiners' den rather than the peaceable roasting of a pig at the camp fire of the caravan of three French travellers.

Before leaving we questioned the people as to the valley of the Salwen, known here as the Lou-kiang. They told us that it was a three days' march to that river by paths wholly impassable for mules, with numerous villages belonging to the Hé-Lissous or savage Loutses. "*Non cognoscunt urbanitatem*" was Joseph's comment, as he further imparted to us a curious fancy gleaned in course of conversation from the Lamasjens. The latter believe that the grains of rice were brought by dogs, and that if they had no dogs they would have no seed. They could offer no ground for the superstition other than that their grandfathers had told them so.

Having been refused supplies by a chief the day before, on the 1st (August) Briffaud, Joseph, Sao, myself, and a guide diverged from the caravan to try and find the village of Téki, where we were told we might obtain information as to the



There was nothing for it but to wade.

L. M. M.

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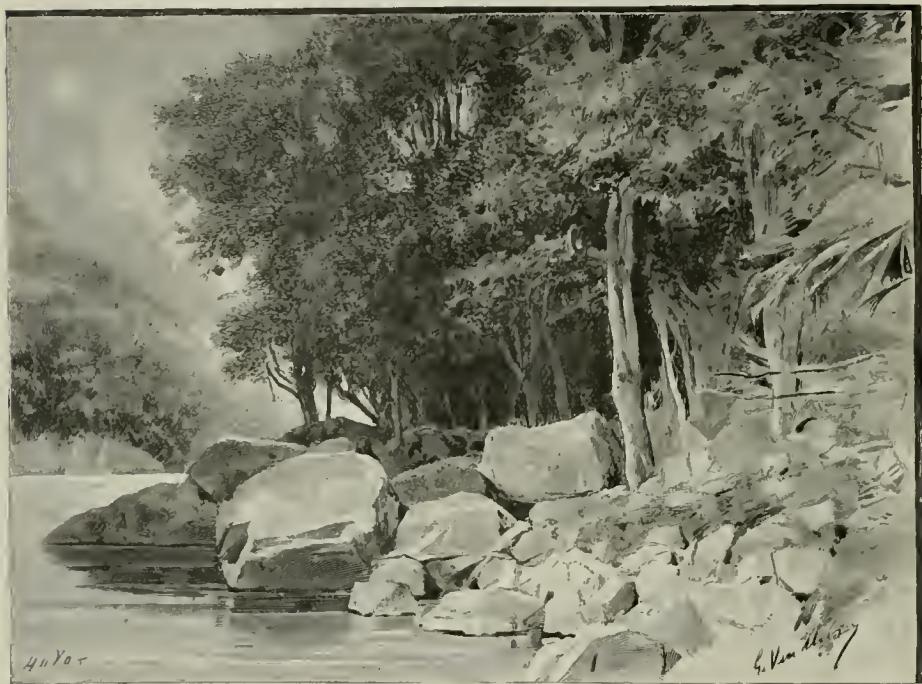
Salwen valley. After following a path to the wooded brink of a torrent, the track ceased. We had to separate, and I struck a trail in the thicket that brought me to a secluded nook, where on two opposing boulders, half hidden under the leaves, a fallen tree trunk spanned the chasm. A fine place for robbers, but utterly out of the question for mules. There was nothing for it but to undress and wade with our clothes on our heads. The water was nipping cold, and the current so swift that only by joining hands and leaning on a pole could we make head against it. Having forded the stream, we had to scramble up a frightful steep on hands and knees. How our mules, unloaded though they were, ever followed us was a problem: after what I have seen, I would wager them to climb any staircase.

By this means we at length reached Téki, two freshly built villages as yet undarkened by time, and with the thatch still yellow on the roofs. Among the new buildings protruded many ruins; Téki had come in for devastation both by the chieftain of In-Chouan and by the subsequent Chinese avengers. At the doors stood scantily clothed women: a slight apron formed their sole covering; some even found this too complicated, and preferred the garb of nature. We checked our mules at the court of an opium-smoker, who seeing us offering to pay for grain waxed communicative. A bad path was said to lead from here in two days to the Salwen, there both wide and deep. The Loutses were clearly Koua-Lissous. Here the word Loutse meant simply natives of the Lou-kiang, and was not applied to a race. The independent Lissous were reported dangerous; a few bolder spirits from the Mekong valley occasionally penetrated their district at their peril to trade linen, salt, tobacco, and opium against drugs and skins. The Loutses made constant incursions

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hereabouts ; only three days before, they had paid a visit to Téki and carried off a resident as a slave.

From Téki we rejoined the caravan near a hamlet whence the inhabitants issued with lances and seized our mules by the bridle, but it was only with kindly intent. Farther on we came across an ill-looking company in a wood armed with bows and arrows. Our tent that night was pitched under a large walnut-tree



Torrent Bed near Téki.

in which were stuck small white flags, a religious custom common in Thibet. Hard by was the village of Toti, which the Loutses had raided only the day before, capturing two men and a horse.

"Eagle Beak" announced to us that the inhabitants of this Toti were Hé-Lissous, and consequently his kinsfolk. We thought this circumstance would procure us a dance in the evening, but found instead that they were far from being well dis-

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posed towards us. They were heard in conference: "If the big men come among us without notice, it can only be to kill; we will be beforehand with them." We had only just finished dinner when the rallying horn was heard, and large fires were lit on the surrounding heights. As a precaution, I served out cartridges, and recommended the men to watch by turns; on which they hugged their guns and responded, "*cheulo! cheulo!*" (all right!), and promised to do sentry-go in spells of two hours. Finding us thus prepared, some of the people came in from the village offering us dried fungi, and bidding us not to have any fear. I took the opportunity to tell the chief that we were in no way alarmed: our treatment of the villagers would correspond with their treatment of us; if they attacked us we were ready for them. They then retired, and we lay down to rest. I woke in about an hour. It was as dark as pitch; the fire was half out, and every man was as sound as a babe. It was no good waking them; so back to bed again; one must run some risks in travel. But the Toti folk missed a good chance that night.

2nd (August).—We had three Lissous with us to-day, one of whom, having been plundered by Loutses, turned the tables on them by robbing the robbers of a sword and a red sash which he was wearing. By his account the Loutses subsist entirely by pillage. Asked why the Mekong Lissous did not retaliate upon those of the Salwen, he said the latter were better armed, and they were afraid of them. One of these Lissous produced a curious musical instrument formed of three small palettes of bamboo with stops. By applying the stops to his teeth and making them vibrate in turn with his finger, his open mouth acting as a sounding board, he drew from them a soft and plaintive tone, so low that one had to be quite close to hear it. The instrument

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is of Loutse origin, and the Lissous will sit for hours amusing themselves with it.

On the 3rd (August) we stopped at Fong-Chouan. The Mekong here is forced into a complete S by rice terraces, having on the left bank another large village called Oueï-ten. The eye hailed with pleasure the reappearance of green cultivation after the dreary spell of gaunt mountains we had passed. At our midday halt Sao and Joseph exercised themselves with some cross-bow practice. The weapon is made of very tough wood, with a notch cut on the haft, and discharges featherless arrows with sufficient force to pierce a tree at forty paces. The point of the arrow is of wood, filled just above the actual tip with a virulent poison extracted from a geranium-leaved plant; the arrow head being easily detached to receive the unguent, breaks off in the wound. The natives are never without this arm, even at their work in the fields; many likewise carrying a sword about $3\frac{1}{2}$ feet long, rectangular at the end, and as sharp as a razor.

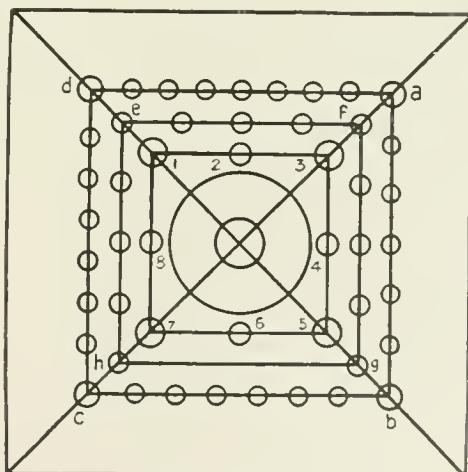
At Fong-Chouan I inquired of Joseph the meaning of the images and designs of Chinese pattern that filled the pagoda in which we slept. He expounded them thus:—"Against the wall you observe a table or altar on which are three panels. The left-hand one depicts the Water King: clothed in yellow, with a sword in one hand and a red sphere in the other, one of his feet rests upon the head of a marine monster; beside him crouch two devils. In the centre panel is the Mountain King, the greatest of the three: his head and his body are white; he has two faces, each with three eyes. The mouths are open, and disclose one tooth on either side longer than the rest; they are for defence. Upon his brow are red flames; around his neck are hung miniature human heads. He has six arms; the two upper

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ones support twin discs, red and white, which are the sun and moon; the two middle hands are clasped in prayer; the two lowest hold, the one gold, the other a spear round which is twined a serpent. On either side of the god is one carrying books and a pen. The right-hand panel represents the Animal King: his countenance is adorned with long moustaches; he grasps in one hand a sword and in the other a cake or fruit, upon his head a red cap such as is worn by mandarins. The god is seated on a tiger, and at his side stand two priests in long robes, with shaven heads."

There was a vessel before the panel of the Mountain King containing small bamboo stalks inscribed with two characters, phrases from a religious book; the credulous who wish to know their destiny shake the vessel and draw forth a stalk, and interpret the sentence according to desire. This manner of reading the future reminded one of the usage of cutting the Bible at hazard.

In the centre of the pagoda was hung from the platform a square paper, marked thus—



The little circles arranged round the square *a, b, c, d*, are silver, and bear the names of the twenty-eight stars.

The little circles arranged round the square *e, f, g, h*, are red, and bear the Kiatsé or cycle (names of days).

The circles 1, 2, 3, 4, 5, 6, 7, 8 contain pictures, 1, 3, 4, 5, 7 red, and 2, 6, 8 silver.

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These discs are called the Pakoua, and represent the system according to which are divided the elements, as water, earth, etc. Following the diagonals *af*, *hc*, *de*, *gb*, are hung small flags inscribed with characters to frighten the devils.

At the entry to the pagoda are four words in large characters, meaning :

TO INVOKE

IT IS NECESSARY

WITH FEAR

CLEARLY

On either side of the door two long tablets bear inscriptions :

Left.

With three eyes (the Mountain King).
Can see all.
Can see three thousand (hours).

Right.

With six shoulders.
Can govern the Louko (the Louko is an assemblage of six things,—sky, earth, mankind, eternity, money, great chief).

We were detained a day in Fong-Chouan by the search for a runaway mule. During our stay the Loutses attacked a village three miles distant, killing one man and wounding and kidnapping several others. We derived some more particulars of the Salwen or Lou-kiang, which hereabouts was called equally the Nong-kiang and the Nong-tse-kiang. Another river was said to flow near it in the same direction, named the Kiou-kiang, and this our after-experiences proved to be correct. Report also spoke of silver and copper mines on the left bank of the Mekong, at one or two days' march from Oueï-ten.

On the 5th (August), at starting, I noticed two Lissous who were wearing grey robes, Thibetan fashion, and plaited bamboo necklets: they proved to be traders from the Salwen valley, offering for exchange many Loutse objects, all made out of bamboo—long-stemmed pipes, woven baskets, pitchers with handles, etc. Judging from these articles, the transmontane tribes were more industrious than the poverty-stricken Lamasjens. Our stage was curtailed by a landslip, and we were promised an entire

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cessation of the track two days ahead, where a hundred men would not be able to clear it. Both absence and destruction of means of communication were attributable to the terror inspired by the everlasting Loutses, the left bank and safety being usually preferred to this one.

While in camp the villagers constantly came begging for remedies, chiefly for eye troubles; and I made a large quantity of boric acid. Among our visitors were two with a kind of leather cuirass protecting the back only, which suggested to us that that was the part they most often presented to their foes; but they averred that were it in front they could not level their crossbows on its slippery surface. One of them also possessed some balls which he would not part with at any price; they were a precious remedy against all ills, made from the gall of bears. Questioned as to the treatment the Loutses accorded to their prisoners, these warriors said they could be ransomed for from nine to fifteen oxen a man; if unredeemed, they were put to hard labour as slaves. The women were made bondwomen of, rarely married. The slaves might intermarry, and their children would be free; moreover, any captured children were brought up as their own in liberty. The accounts, therefore, of the ferocity of these Loutses would seem to be exaggerated.

To show the destitution of these villagers, I saw one going round among our mules with a sack, sweeping up the grains of paddy, mixed with twigs, that had dropped from their nose-bags.

Another short stage, and on the 7th (August) a dead stop with an abrupt end to the path. By dint of incessant and very severe toil, our mafous, aided by hired natives clearing brushwood, cutting down and filling up, pushed and pulled the animals through; so that at nightfall we were over the worst of it, and

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reached a welcome hamlet. These emergency Lissous were a light-hearted set. After all their exertions they sat round the fire at the end of their long pipes, laughing and chatting, with no sign of exhaustion. They took what we gave them cheerfully, and made



Lissous at Lameti.

their way back to their villages at once, haunted only by the fear of having left their women and children at the mercy of marauders.

Our hosts at Lameti consented to perform a dance for our benefit, and a threshing-floor having been turned into the ballroom, the orchestra tuned up. It consisted of four musicians—a flageolet, a violin with two strings, a guitar with four, and an

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instrument of slender bamboo strips made to vibrate upon the teeth. This last was played by an old woman, who was also mistress of the ceremonies. The air, though not very varied, was soft and rhythmic. The dancers formed a ring and began from their stations, alternately advancing and withdrawing their legs. Presently the villagers, male and female, gathered behind the circle and commenced to beat time loudly with their feet. Now the ancient Fury who led the orchestra stepped into the centre. With her commanding stature, parchment-wrinkled face, grisled locks crowned with a chaplet of seeds, and a collaret of bears' teeth and claws gleaming upon her breast, she was the personification of a witch. Faster and wilder grew the measure. The men who circled round her seemed under a spell, their heads thrown back, their eyes fixed, their hair flying, lost to all sense save that of motion. It needed our intervention to bring them back to earth; so we despatched them to practise reality in road-mending against the morrow.

The people told me they had no priests, and that when anyone died they put his arms and implements near his grave, that his spirit might miss nothing in its flight towards the mountain-tops, beyond which they knew no farther resting-place.

The dwellings in the next village were ranged alongside each other under a common roof, with a central rectangular court for combined defence against attack. As a consequence of so many families living together, the greatest laxity of morals seemed to prevail. As for the chief, he had only four wives; the fifth was lately deceased. Amongst this branch of the Lissous incompatibility of disposition is sufficient cause for separation, and either party is then free to marry again.

At night the dance was again readily organised, to the delight

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of the villagers and the amusement of our men, who transformed themselves into link-boys with resinous pine branches. It was kept up with spirit, and great was the appreciation when we ourselves chose partners and "took the floor." The performance was in most respects similar to that of the preceding night, save that the surroundings, lit by a brilliant moon over the shoulder of an ebon mass of mountain, were even wilder in this out-of-the-world spot than before. Indeed, so secluded was the village, that only the merest chance had discovered it to us: no possible outlet from this angle could have been guessed for the river. By degrees, as they grew tired, the dancers withdrew from the circle, leaving three to foot it in a *kotchoau* (triple set). This they executed at fixed distances apart, gradually contracting till their shoulders touched, then radiating again, wheeling, pausing, leaping, without a moment's cessation of the instruments; the time was perfect, and the dance demoniac, though it did not lack grace. A *pas de deux* ended, like a cossack dance.

To this succeeded singing. A woman with a very fair voice began an air which the others took up in chorus. Then followed improvisation by one alone, or by one against another, the burden of the songs being all in honour of us, as shown in the literal translation thus roughly given me :—

<i>Seupa</i>	<i>ala</i>	<i>mamon</i>	<i>téléko</i>
The lords	almost	impossible to see	now once
<i>Seupa</i>	<i>dzeula</i>	<i>o</i>	
the lords	have found		well
<i>Téga</i>	<i>seupa</i>	<i>lainia</i>	
now	the lords	have come hither	
<i>cheu</i>		<i>kai tai pi;</i>	
no more		of ills;	

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or fuller, thus :—“ Three such great lords had never before come to us. It is very hard to find us. Now they are here, it is well. Before, the Loutses were always plundering us. Now that they have come, the Loutses are greatly afraid. For many years we were in sadness ; we had many ills. Now we are happy. The three great lords pass our dwelling : henceforth our fields will flourish, our harvests will be full.” Poor, childish, ignorant folk, with no other joys than the pipe, the dance, the song, and love of species shared in common with all creation ! Before leaving in the morning I saw a sufficiently wretched sight. In one of the houses a man was chained to a post neck and heels, though his evil plight admitted of his smoking still. He was a Loutse, one of the redoubtable brigands who, lagging behind in a recent foray, had been caught. I could not see much to choose between him and his captors.

The entertainment of the preceding night, or the better state of the road on the following day, put the men in good-humour. The makotou also, who had suffered from fever, was nearly well. He attributed his cure to the sacrifice of a little porker to the God of the Mountain as compensation for disturbance in path cutting. We passed the night in a clean house, belonging, strangely enough, to a Chinese. It was some time since we had seen any of his confraternity, and we had not missed them. But this one was a better specimen—a merchant of Yünnan, who had married a Lissou and had two daughters, the younger of whom we saw. The elder had gone to Ouisi to find a husband. The father took me into his confidence, and poured out his paternal woes. Suitors hereabouts were so poor that his two girls, when they wedded, would only bring him ten taëls apiece ; at Toti he might have safely reckoned on two hundred.

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Here at Loza the Loutses were again in evidence, and night and day ten men watch on the brow of the hill to signal their approach. In the morning we were witnesses of a thank-offering to the Spirit of the Earth on behalf of an old woman recovering from illness. On the ground in front of the sufferer's door had been set up a small wooden framework model of a house with a bough stuck at each support. The structure covered some saucers of seeds and cakes, and behind it was arranged a measure of rice with two cups of tchaotiou upon it, and a distaff, the thread of which was twined round the frame. A coarse paste effigy of the Spirit presided over the whole. Before it was a basket containing a straw and three vertical bits of wood. An old *tongpa* (Lissou sorcerer) squatted beside it, muttering incantations. In one hand he grasped a fowl, which he first sprinkled with a twig dipped in the libation, while he recited the names of the spirits invited to the feast. Then, having opened the fowl's throat, he smeared the idol and the posts with the blood, and applied feathers to the parts thus anointed. The bird was then plucked and thrown into a pot, and the repast was ready for the invisible guests. For his own portion the wizard received the plates of rice.

During the next two days the valley opened out and cultivation increased, with splendid walnut, chestnut, and peach trees, the fruit of the latter unfortunately not yet ripe. Villages were numerous; and side by side with our old acquaintances the Lamasjens we met with yet another tribe, the Mossos, of whom more hereafter.

It was now that we suddenly descried, on the far side of the river, some black tents, whose peculiar form, as well as the thick smoke they emitted, did not leave us long in doubt as to their owners. They were Thibetan; and their presence at this spot assured us that we were within a few days of the land of the

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Lamas, the northern limit of our wanderings. We hailed the sight with joy; for behind those few black rags and that smoke lay a meaning that sufficed to put heart into the whole caravan.

On the 11th (August), after passing several streams, where, by means of wooden planks with shutters, gold washings were being carried on, we arrived at the village of Into, connected by two cable bridges with the small town of Hsiao-Oüisi opposite. At both these places there are Christians, and in the latter we found a French missionary, Father Tintet, whom I knew at Lioutin-kiao in 1890. The meeting with a fellow-countryman in so remote a spot was a great event for us, and for the moment as we chatted this farthest recess of China became France.

The news of the station was not good. Father Goutelle, the *doyen* of the Thibet Mission, had died ten days previously at Ouisi, without having realised the dream for which he had laboured forty years—the recognition of the Roman Catholic religion at Lhaça and other cities of Thibet. The poor missionaries were in evil case. Notwithstanding the promise that M. Gérard had extorted from the Tsungli-Yamen of the reconstruction of their destroyed stations at Batang and Atentsé, nothing had been done. The viceroy of Setchuen, having been recalled to Pekin, gave orders before his departure to demolish the mission houses; and, just when his spite had been wreaked, was poisoned. The mandarin of Oüisi followed suit by committing suicide. The latter had sent in a report avowing that the stations had received no injury either at Tsekou or Atentsé. It was forwarded through Yünnan-Sen; and simultaneously with its consideration at Pekin a second document, setting out the loss sustained by the missionaries, arrived from Ta-tsien-lou. The result of the conflicting evidence was a reprimand, addressed to the viceroy of Yünnan, who lost no time in passing it on to his

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subordinate at Ouïsi. The latter mandarin read the letter, dined, and forthwith killed himself in his garden. His successor, furnished with precise orders to see justice done to the Fathers, presented himself at Atentsé, and inquired who had burned their domicile. The Lamas replied that they had done so. "For what reason?"—"The Fathers prevented the rain." "Do they not eat?"—"Yes." "Then if they eat they will want harvests like yourselves; and if harvests, rain?"—"But they have money." "Can they eat money?"—And so on. The conclusion was foregone; no compensation was obtained; the magistrate's secretary was a relative of the Lamas. We have given the above at length as an instance of the obstacles the missionaries have to encounter, and of the utter supineness of Chinese officialdom in face of the articles in the Treaty of Pekin on the subject. Perhaps some day China, vanquished on her coasts, penetrated by more civilisation, and, not improbably, disintegrated by her own internal parties,—notably those from the side of Thibet,—may relinquish her habitual perversity.

Tidings affecting us personally also reached us here. A letter from Father Leguilcher at Tali conveyed the intelligence of the death of our interpreter Joseph's only child. This might have the effect of detaching a valuable servant. But on my breaking the news to him, after the first outburst of grief he bore it with Christian fortitude. "God," said he, "has taken my child; but we shall meet in heaven. You have present need of me, and I will follow your fortunes." I was glad to honour his courage, and to recognise in this singular Chinese a testimony to the fruit of our missionaries in the Far East.

From Father Tintet we derived some information of this region. Though his proselytes were few in number, he was held in respect by all. The valley being impoverished both by its sterility and

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the improvidence of its inhabitants, one of his endeavours was to induce the people to store the grain. The rains here are neither very heavy nor regular, and during a certain season nothing is seen but a little buckwheat cultivated on the heights. In the months of January and February it rains a good deal; but the cold is never extreme, the minimum temperature being about 20° Fahr., and there is little snow.

Whilst we had enjoyed the society of our countryman, our men had not been idle, and with several days' grain supplies ready, and the season now advanced, we were constrained to be off. Again we were warned that after a few days it would be impossible to continue on the right bank. Besides the consideration that the transport of our numerous caravan to the other side by an insecure bridge would be a hazardous undertaking, I preferred to adhere to my original enterprise until it should become absolutely impracticable. On the right shore of the Mekong we were in unexplored country. At Hsiao-Oüisi the traveller Cooper, coming from Atentsé, had crossed, as well as several missionaries. All had quitted the river valley to the south of the town and gone in a south-west direction; so that we should have an entirely untrodden territory before us.

Accordingly, on the 12th (August) we performed a short stage. Our troop had lost the services of "Eagle Beak" and the two Minchias, and their places were filled by two Thibetans supplied by the Father, who himself proposed to accompany us a short distance. These recruits were Christians, and promised to be good workers. I was glad to see once more the copper-coloured, large-eyed Mongolian type and the regulation Thibetan *tchaupa*¹ and woollen boots.

¹ A rough woollen tunic reaching to the knees, crossed in front and tied in to the figure so as to form a pouch wherein pipe, tobacco, and food are carried.

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The march of the 13th (August) was a short one to the village of Ngai-hoa, where Father Tintet took leave of us. Hospitality was offered us by the chief, and we preferred the shelter of his oratory to that of a bed-chamber where lay his octogenarian mother. In the chapel was an altar with three niches, from one of which the goddess Khou-an-yn with her child in her arms watched over our slumbers. It was said she would protect us for two nights, but none the less we lost three mules, which retarded us for a whole day. Nothing was more exasperating than to discover on the eve of starting that a mule was missing. It was no use dropping on the men; they would simply have left us. Patience and search were the only remedies; and in these Joseph, with his good-sense and experience, was unrivalled. Roux, who was in haste to reach the frontier of Thibet, exclaimed at one of these checks: "What are we to do if we stop here?"—"Probably eat and sleep," replied Joseph, sucking at his pipe.

On the 15th (August) we came to the village of Halo, where there was a ferry. A little higher up the right bank is stopped by precipitous cliffs to the water's edge, and pedestrians creep round on pegs of timber driven into the face of the rock. This acrobatic performance being impossible for quadrupeds, the only alternative by which the position might be turned was a flank march of a fortnight into the Salwen valley, and so round to Tsekou. This decided us. We had reached the point where the right bank must be abandoned for the left; on which a road led in two days to Tsekou, and an opportunity would be given of making the acquaintance *en route* of a chief whose friendship might prove of subsequent advantage to us. A bargain was therefore struck with the headman of Halo for the passage of

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ourselves and our belongings for seven and a half taëls, and a day and a half to complete the job. The men were delighted at the prospect, and were ready to joke now over a scare they had had from some falling stones that morning, when the bold Fa loosed off his gun plump into the thicket, and swore he heard the robbers scampering.

In the evening bonfires blazed in the village in honour of the Hopatié (fire, wood, fête), the S. Jean of China, when each family invoked a favourable harvest. The flames lit up the orange-trees, the palms gleamed steely blue, and the red flowers of the giant pagoda-trees returned the glow as we kept the feast of Hopatié by letting off crackers which the people gave us.

It was rather a ticklish sensation to be launched upon the swirling Mekong in a crank dug-out 16 feet long, paddled by four men. The waters were on the rise; another day and the boatmen would not attempt the crossing. As it was, great care was needed to prevent the frail craft getting broadside on to the rush; and Joseph, who loved not water frolics, uttered a fervent *Deo gratias* when the exciting moment was safely past. The mules were transferred by towing.

From here, Roux and I, with Joseph and three men and pack mules, set forward in light order. Briffaud continued with the caravan, to rejoin us at Tsekou. Upon the left bank we fell in with a young Christian of Kampou, returning from Hsiao-Ouïsi, and engaged him at once as guide and servant. The way was good, wide, and free from scrub, having been prepared for the passage of the mandarin of Ouïsi. After so long clambering over worse than goat-paths, with the river always within sound on our right, it seemed strange to be walking at ease on the level, hearkening to it roaring on our left. We passed through the

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little Mosso village of Kampou, where the inhabitants utilised even the dikes between the rice-fields for beans. Soon after, the country became wilder; affluents of the Mekong intersected our road with barren gorges, the hills were covered with pines. Just before dark we made out on the brow the white buildings of a Lama monastery; and as we could not reach a village before nightfall, we determined to throw ourselves on the hospitality of the Order.

From a winding path beneath the sombre pines we all at once emerged on a wide clearing, in the midst of which was reared a striking pile. We knocked at several doors before anyone opened, but on gaining admittance were soon the centre of a crowd of monks, fat and bronzed, with shaven heads, and draped in red toga-like mantles. They belonged to the Order of Red Hats, who had never been hostile to the missionaries. Some were Mossos, others Thibetans; they spoke either language equally, but only used Thibetan writing. Our hosts conducted us to a clean little tenement, occupied by a Lama and his two disciples. At the sight of money, eggs and grain were quickly forthcoming; they brought us also some small apples, and a jar of that beverage which the Thibetans call *tchang*, and the Chinese *tchaotiou*, in which the owner of our lodging pledged us freely.

Hearing loud shouts in the course of the evening proceeding from the space in front of the monastery, we descended, and beheld the Lamas in the act of decking a post with resinous torches, surrounded with flowers and leaves. It was the continuation of the Hopatié. A light having been applied, they began to sport round it, the young bonzes gamboling and throwing somersaults with very unclerical vigour. Next, all, big

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and little, placed themselves one behind the other, according to size, each holding on to the skirts of the one in front of him. One was left out, who made dashes at this string as it revolved rapidly, like the spoke of a wheel. The game consisted in the single Lama trying to catch the man at the tail, without being himself caught by the one at the head.

The fire sinking low, the fête concluded with a concert of ear-piercing whistles, which each produced by putting his fingers to his mouth. Spying a woman at a little distance, a spectator of these games, I asked our host if the Lamas married—"Oh, never!" "Then there are none but Lamas here?"—"Assuredly." "But I saw a woman."—Embarrassment of my interlocutor; he reflected a moment—"Probably," said he, "some female who came to take a walk here. But," added he, "don't repeat it; it would never do to say that the Lamas were married." In reply to interrogations about Lhaça, my Lama said he had been there four times, and gave us particulars as to the route.

The following morning we were able to examine the temple near which we had passed the night, and of which, in the dusk, we had only distinguished the outline. It was a white rectangular building, with some resemblance to a Chinese pagoda. Outside appeared, in conspicuous iteration, the invocation cut on stone—

OM MANÉ PEDMI HOUṂ.¹

Around it were grouped several smaller structures, surmounted by diminutive towers, with medallions of gods in terra-cotta, horns, and inscribed bones; while in front stood posts from

¹ "Adoration to the Jewel in the Lotus, Amen!" The Shadakshara Mantra, or "six-syllabled charm," with a combined sense of praise and prayer; regarded by the Lamas with deep reverence as containing an unfathomable doctrine.—TRANS.

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which waved in the wind long lhaders, white flags lettered with Thibetan characters. There could be no doubt we were approaching the confines of the country of prayer.

The interior of the Lamaserai presented a series of courts, the walls of which were covered with frescoes, inspired conjointly by Thibetan and Hindu Buddhism with Chinese beliefs. One circular painting represented a male and female, naked, before a tree laden with fruit, round the trunk of which a serpent was entwined, and surrounded by divers animals. Among the Lamas the serpent formerly was regarded as the enemy of mankind. Is it possible that in this picture was to be discerned a survival of traditions carried into Thibet by the Nestorians? It is not for me to say. But the points of resemblance between the creeds of Roman Catholicism and Thibetan Buddhism, as exhibited constantly in matters of ornament and ceremony, were too frequent and too striking to be attributable to chance. Whence can they have been borrowed, or who were their originators? The question is still far from being solved.

Pursuing our investigations, we came to the central edifice. The gabled roofs rose in tiers above each other, fining into a kind of pyramid, crowned by a gilt cupola. The door of the temple was willingly opened to us, but we were requested not to ascend to the upper storey, which served as a sacristy, as they were averse to our inspecting the penetralia of their worship. In the basement of the pagoda was seated a massive gilded image of the Thibetan Buddha, cross-legged, with two saints, also gilt, of natural size, at his side, holding tridents. Arranged before the Buddha on a table were the seven copper bowls of water usually seen on Thibetan altars, and, a little in advance of them, another vessel containing oil and a lighted

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wick. Behind and above the idol a Krout deity was displayed with spread wings, holding a serpent in his beak and talons. To right and left of the altar the symbols showed traces of affinity to Indian tradition—notably a painting, in which was depicted a female with twelve faces, disposed in four rows of three, one above another, and with ten arms, of which two clasped a heart upon the breast. The walls on either hand were decorated with saints, men to the right, and women to the left, in blue, green, or yellow, each with an aureole. From the gallery of the first floor drooped flags and bandrols, emblazoned with Thibetan scrolls and characters. Elsewhere were bronze candlesticks, copper bells, a Thibetan gong, and a fine censer. For readers who have not studied the question, it would be of little interest to draw attention to the similarity between the ritual and ornaments in use by the Lamaserai of Kampou and those of the Roman Catholic faith,—altar, lamp, holy water, candlesticks, censers, bells, saints with aureoles, the bird holding the serpent, etc., are common to both.

Corresponding ornaments and images from Lhaça were to be found before the private altars, which each head Lama had in his private lodging. Notwithstanding their religion, these brethren had no scruples against trafficking in these objects, but the price was prohibitive. Our visit concluded, nothing remained but to take leave of the Kamapa (Star, symbol of the sect of Red Hats), and to resume our journey, well pleased to have had the opportunity and privilege of admission to their monastery. This day, the 17th (August), was destined to maintain its interesting character, and to be remembered as one of the pleasantest in the entire record. For in the afternoon we entered upon a little plain, which contained the village of Yetché.

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Yetché is Mosso, and ruled by a petty king of some celebrity in the district, and it will not be amiss to give here a few particulars of his people and their organisation.

The Mossos belong to that Thibeto-Burmese family which has thrown out several offshoots in Upper Indo-China. In the view of Terrien de la Couperie (*Beginnings of Writing in Central and Eastern Asia*) they would be of the same group as the Jungs or Njungs who appeared on the frontiers of China six centuries before Christ, coming from the north-east of Thibet. Chinese historians mention the Mossos seven hundred and ninety-six years after Christ, the epoch of their subjection by the king of Nantchao. Regaining their independence for a time, and then reattached to the kingdom of Tali, they recognised the Imperial suzerainty in the fourteenth century, and were definitely subdued by China in the eighteenth century. They and the Lolos have probably the same origin. The names of the two peoples are of Chinese application; and whilst the Lolos call themselves Nossous (or Nesous), the Mossos are known as Nachris. The dialects of both have many points in common. Upon their reduction by China they were settled round Li-kiang, within a few days' radius of the town. Towards the north they extend on the left bank of the Mekong to Yerkalo, and on the right bank up to within two days' march of Tsekou. Formerly their sway reached far into Thibet, beyond Kiang-ka. There is a popular Thibetan poem, the *Keser*, which celebrates the exploits of a warrior who strove to drive back the Mossos.

The men are dressed in the Chinese manner, but the women have a distinctive head-dress. Their hair is gathered into a knot and brought up in front of the head like a horn,

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with a silver button on the top; behind this button is fastened a silver-studded band from which hang down behind the ears a pair of scalloped ear-rings, also silver, larger than walnuts. This ornament is only worn by married women, and is presented to them by their husbands on the birth of a child. Young girls have only the band without the rings. As great value is set upon these trinkets, which are handed down from generation to generation, they are difficult to obtain. In the rest of their dress they, too, follow the Chinese, with the exception of the wife of the *mokoua* (Mosso, king), who has an elaborate and pretty costume. Over the shoulders is flung a black sheep-skin fringed with a pound or two of silver bangles, and little bells and bits of glass at the waist. The head-dress is identical in shape with that of the common women, but the ornaments are of gold. A silken jacket with silver and coral buttons and a green skirt complete the effect.

The Mosso worship is that of spirits. Carved posts, on which a frequent design is an eye, are set up at the entry of the villages to avert evil, and to the same intent within the houses a pillar is planted in the centre with branches, inscribed bamboos, and small flags round it. The tradition of the Deluge is known to them. Wizards they have; often made in spite of themselves by common consent if thought to possess the proper qualifications for scaring evil spirits, to which must be added the art of healing; for in the event of failure the elect of the people is occasionally slain. On the first day of the year a feast is held at which pig fattened on peaches is sacrificed, and nothing but Mosso talked; if any Thibetans are in the village they are excluded. The medicine-man only makes his appearance once on such an occasion, to stamp a white moon

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on the shoulders of the people; and withdraws afterwards into the mountains for twenty-five days, whither the tribe brings him food. They burn their dead; but the ceremony never takes place during harvest. At that season the bodies must wait, sometimes preserved in salt.

Mosso writing has no real existence as such. The wizards make and keep manuscript books filled with hieroglyphics; each page is divided into little partitions, horizontally from left to right, in which are inserted rough drawings of men, houses, animals' heads, and conventional signs for the sky, lightning, etc. I was enabled to carry away with me several of these books. The traveller Gill and the Abbé Desgodins had already taken specimens to Europe, but without a clue to their meaning. The magicians explained two of them to me. They were prayers beginning with the mention of the creation of the world, and ending by an enumeration of all the ills which menace man, which he can avoid if he is pious and gives gifts to the magicians. I have been able by collation to establish the identity of certain ideas with certain signs, although the wizards told me they had no alphabet, and that the hieroglyphs were handed on by oral tradition alone. It was interesting to light among an isolated people upon one of the first stages in the evolution of writing. Many of the Chinese characters were originally simply pictorial hieroglyphs; and had the Mossos developed instead of restricted their signs, we might perchance have seen in their sacred books the birth of letters for them also.

Yetché, as I have said, is the residence of a *mokoua*. He is of noble blood, and belongs to the ancient royal family of Li-kiang. The power with which he is invested by the Chinese Government is hereditary. His territory, which extends but a

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short distance to the east, runs northward almost as far as Atentsé, southward to within two or three days' march of Yetché, and westward beyond the Mekong and the Salwen till it touches the borders of the Irawadi; but the *mokoua* only accounts to China for his administration, that is to say the collection of imposts, in the districts on the left bank of the Mekong. Indeed, China, on the principle of *divide ut imperes*, and lest these kinglets should become too important, has broken up their spheres of power on her frontiers by the insertion of Lamas, toussous, and other petty chieftains. The *mokoua* is responsible yearly to China for the tax of the villages that possess rice-fields, forty or forty-five taëls per village, the Chinese families paying him the *tipi* or ground rent of their holdings. He levies on his own subjects every three years the tithe of their live stock, and to him of right belongs the yearly issue of a licence to hunt called the *chamachu rui* (price of the *chamachu* or flying squirrel), which more especially affects the Lissous of the Mekong right bank. They must furnish besides, yearly and by family, four tsiens, paid in cereals, wax, or money. Occasionally the *mokoua* himself fixes the nature of the contribution. He for his part presents, also yearly and by family, to one-third of his people a plate of salt, to another third wine, and to the remainder meat. The Christians are exempt from the corvée and from military service, but not from the cereals or the four tsiens.

On the first day of the year the *mokoua* receives a visit from his Lissou subjects, who bring with them presents, not of duty but of respect; it would not be fitting to come empty-handed. One offers some roots, another edible fungi, a third a pheasant killed *en route*. They then perform a dance before him—a round one, in which sometimes as many as a hundred men take

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part, and of which the movement gets faster and faster until it has happened that those who fell have been trampled to death beneath the feet of the others. On the celebration of these fêtes each visitor receives from the king wine and meat, more than a dozen oxen being slaughtered for one repast. The Lissous are not always tractable ; it is narrated that on a recent occasion, dissatisfied with their meal and excited by drink, they broke out into a riot, and would have killed the *Iseupā* (Lissou title for the *mokoua*, "great chief") ; but the latter, notwithstanding his youth, boldly bared his breast and dared them to strike. This display of courage appealed to their own, and the young king acquired a great popularity from that moment.

The Mossos of Yetché are regarded as the slaves of their chief; three families can always be called out for service or for corvée. Each of his subjects must contribute to the building of his house; and his field labourers receive their keep, but no pay. The people on the left bank of the river have a right of appeal against the *mokoua* to the Chinese court at Oüisi. But it is never put into use : whatever happens, his jurisdiction is invariably found more just and less tyrannical than the Chinese tribunals.

The father of the reigning Mosso *mokoua* was a trusted adherent to Yangynko, conqueror of the Mussulmans of Tali, and having been deputed to reduce the Lamaserai of Honpou (near Atentsé) was there assassinated. Although his death was avenged by Chinese forces, and a fine of three thousand taëls plus the head of the murderer exacted, this did not satisfy his son and successor, who sent two thousand Lissou warriors (after making them drink vengeance in bull's blood, their warlike custom), and devastated the villages belonging to the Lamas up to the outskirts

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of Tsekou, but respected the lives of the Christians and missionaries. Through the instrumentality of the latter the implements and oxen were saved for the villagers, and Father Dubernard redeemed the prisoners from the Lissous with a ransom of salt, gaining thereby such goodwill from the natives of the Mekong that they would hardly consent to his return to his own place at Tsekou. The young *mokoua* also bound himself by ties of amity with the Fathers, and on the occasion of the latter being expelled from their stations at Tsekou and on the Mekong, before recounted, received them under his protection, saying, "We were friends in prosperity, let us continue so in adversity."

This recitation of preceding local events will explain the interest we had in visiting the *mokoua* of Yetché and in gaining his friendship, the value of which we were to find in our further travels.

When with a present of a revolver and a tinder-box, and heralded by Joseph, we presented ourselves at his house, we found a rambling edifice with a wide central court. The walls exhibited a variety of patterns and Mossô hieroglyphs, all, as well as the mouldings, the design of the royal owner himself, whose more ordinary accomplishments and occupations embraced those of a goldsmith, merchant, and cider maker on a large scale.

At our entrance he came forward himself to greet us. He was a young man of regular features and intelligent expression; being in mourning he wore a white turban, and a white cord tied his queue. Our interview was short, as we could not accept his hospitality for the night, and he appeared nervous and unable to give us much geographical information. He thanked me for my gifts, and regaled us with tea, cakes, and an excellent sweet-

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meat made of plums, and on our leaving presented me with a book of Mosso prayer. By his courtesy also we were provisioned for our journey with pork and edible fungi.

Bidding farewell then to Yetché, we proceeded to Dékou, another Mosso village, where in the evening we witnessed the ceremony with which the medicine-men ward off evil spirits and sickness from the dwellings. Each wizard wore a circular head-dress with spreading fan-like rim, from the back of which hung ribands; in one hand he held a cymbal with bells on the concave side, and in the other, one of those Thibetan double tambourines which are shaken from side to side. Behind them marched one of their number beating a tom-tom with a curved stick. The procession entered each house in turn; the family altar was decked, and cinders were placed on the tripod. When the leader had tasted a proffered cup of wine, he held it aloft while pronouncing a parenthetical litany, in each pause of which children, covered with flour and holding torches, chanted a word in chorus meaning "present." I imagine these to have represented the good and evil spirits invoked. The incantation over, the instruments were given a final shake, a circuit of the room was made, and *exeunt*. At the chief's they have to perform a dance in addition, which they execute with a bowing motion, stooping with outstretched hand as if to pick something up, in a manner precisely similar to what I have seen in Thibet. The function ended round an obo outside the village, where torches were fixed to a post, and children flung into the flames a powder which produced a white flash. The whole observance was a continuation of the Hopatié, which though in China of only one day's duration is here prolonged over several.

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The road traversed on the 18th (August) was good but monotonous, and nightfall found me the guest of a Thibetan family in a lonely little hut. The "Doctor" had taken a short cut with the Christian guide, and so overshot our halt; but, as the country was no longer dangerous, we felt no uneasiness on his behalf. As I smoked my pipe in the moonlight, I realised what a tie is formed by living the same life and enduring the same hardships: I had grown quite fond of Joseph and Sao, separated though we were by a world of ideas; and even with the other men who had covered so many miles with us travel supplied a bond which racial contrasts could not wholly dissolve.

19th (August).—A long day, which seemed to me longer from the lassitude induced by a touch of fever. A line came back from Roux in the morning reporting all well, and that he would push on. In the afternoon the valley contracted: we were now opposite the spot where the precipice had barred our farther advance on the right bank. Here on the left things were not much better. The river had hollowed out the undercliff, and for some distance the way was a mere wooden gallery clinging to the overhanging bluff. The face of the rock above us was cut with large Thibetan inscriptions, the burden of which was always the same prayer found for twelve hundred miles from west to east throughout the country of the Suplicants.

We approached Tsekou, and were already within sight of the white houses of the mission, whence a man came to escort us to the bridge of Tsedjrong, as that of the missionaries had been cut; and here Father Soulié was waiting to welcome us. The two cables composing the bridge were fairly taut, and the leather slings having been adjusted round myself and another, away we went with a swoop. As I looked down at the water all fear of giddiness

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vanded. The other side was reached with the impetus of the descent, and the shock broken by a band held by two men. The mules were soon disposed of in the same manner. At every crossing the running line is greased, but even with this precaution the cords wear out quickly.

When a new connection has to be established, it is done by a light line attached to an arrow, the stream being dangerously strong for boats. On the right bank we were met by Father Dubernard, one of the veterans of the Thibet Mission. In twenty-eight



Father Soulié.

years this is the second occasion on which he has seen European travellers: the first was the Englishman Cooper. The reader may imagine what mutual pleasure our meeting therefore gave.

FROM TALI TO TSEKOU

A ten minutes' mule ride and we were in Tsekou. We had accomplished the exploration of the Chinese Mekong; we had verified the routes of Cooper, Gill, and the missionaries of Thibet, as well as those of Garnier and the Pavie Mission. After the grand works of Rochill and of Dutreuil de Rhins, there only remains an expedition into the Dégué to complete the knowledge of the whole course of the great Indo-Chinese artery, the French river. With Tsekou we had attained the northern apex of our enterprise; henceforward we should be homeward bound. But first to rest, to talk with our fellow-countrymen, and to reorganise our forces while stopping a space in the gateway of Thibet.



Passing a Mule over the Mekong at Tsedjrong.



Mission Buildings, Tsekou.

CHAPTER VI

SOJOURN AT TSEKOU

Labours of the Missionaries—Honest Socialism—Persecution of Christians—Population of Tsekou—Cattle-rearing—Industries—Hunting—Fauna—Flora—Thibetans—Their Religious Beliefs—Lamaserais—Customs—Superstitions—Fables—Songs—Return of Roux from Atentsé.

A TWO-STORYED house, with a roof of Chinese tiles, a terrace, and a chapel 65 feet high with triple gables ornamented with Chinese designs and lattice wood-work, formed the exterior of the mission. The Fathers were justly proud of their chapel; it was indeed wonderful to find such an edifice here. It had taken three years to build, with the services of Minchia journeymen from Kien-tchouan on the borders of the Blue River, and with local materials.

We had for outlook in rear of the chapel the stony ridge ill-

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covered with brushwood that linked the right bank of the torrent of Tsekou to the Mekong. Above and beyond, the mountains, with their uniform covering of rigid pines, rose to the heights on the left of the river. Immediately behind Tsekou, hills were piled upon hills until the horizon was shut in on all sides, and we seemed to be enclosed within a little world apart. The eye sought its only outlet to the north, where the Mekong had forced for itself a narrow passage at the base of a high mountain which occasionally emerged from its usual canopy of clouds, and displayed a rocky summit patched with snow. It bore the name of the village beneath its shoulder, Loukou.

The concession of the Fathers was of considerable extent, and reached the top of the chain that separated the Mekong from the Salwen basin, embracing in its area numerous villages echeloned at various heights, from which on Sunday a congregation of nearly three hundred Christians descended to mass. Father Dubernard has collected the débris of several mission stations, and has become the rallying-point for those believers whom persecution has driven to the refuge of this agricultural community which he has founded. As I



Father Dubernard.

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marked his administration of his subjects, his help for the unfortunate, his care of the sick, and saw him supervising the harvest, laying by food for the improvident, and giving instruction to the young, he seemed to me to resemble some beneficent over-lord of the Middle Ages; or rather, in the finest sense of the word, from which no reader need shrink, to be a true socialist. For is not he the perfect socialist who lives the life of his people, in their prosperity rich, and in their poverty poor, who shares their joys as well as their sorrows, and enters into all their fears? Here we had before us a picture of ancient Christian communism; and if, during the period of our sojourn in Tsekou, we were strongly impressed by the cordial co-operation between the pastor and his flock, if we marvelled at the mutual trust and amity that each reposed in the other, this state could only be attributable to the existence of a common bond, the sustaining power of one thought—the Christian faith. Charity has smoothed the roughnesses, and “the cradle song of human misery” has lulled its children into forgetfulness by showing to everyone the ideal of an earthly life. Father Dubernard was venerated throughout the country-side, and looked up to, at once for his wisdom and his care, as the benefactor of the land. His reputation for healing power was widespread. When smallpox ravaged the district, he vaccinated more than nine thousand persons; and he told me with what success he had combated the prevalence of goitre by treating those afflicted with iodide of potassium. And yet, notwithstanding all the good that has been wrought by the mission, there is perhaps none that has suffered fiercer persecution.

It is no part of my purpose to enter here into the heroic struggles of the Thibet missionaries, so ably set forth by Father

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Desgodins in his book. Suffice it to say that the demands of our minister at Pekin for justice to be done to the Fathers have been of as little effect as the promises extorted from the Tsung-li-Yamen. The edicts of Pekin are disregarded on the banks of the Mekong. The authorities at Ouïsi refused to recognise the re-issue by China in 1894 of the article in the Treaty of Tien-tsin that sanctioned the acquisition by the missionaries of houses and land in any part of China by private negotiation without the interference of the local magnates. The mission at Atentsé was not allowed to be rebuilt. In that same town lay some chests, containing religious ornaments and effects, stolen eight years before from the Fathers. There had originally been thirty boxes, but the previous mandarin of Ouïsi had declared there were no more than seventeen. The present number admitted was nineteen, which caused the Father drily to ask if they had bred in captivity. Always and everywhere the same Chinese deceit.

In the neighbourhood of Tsekou was the pagan village of Tsedjrong. The bessé, or chief man, of this place was an implacable foe to the mission. It was he who, in 1887, had menaced the Fathers with vengeance if they did not clear out in two days. He it was who had cut their rope bridge, and, while outwardly obsequious in their presence, had never ceased to annoy them by every means in his power. To all of which ill-will they had replied by advancing him grain wherewith to pay his tribute, and so avoid being clapped into gaol at Ouïsi.

While we were at Tsekou a Christian came down one morning from the mountains, and reported that three Lamas of the Lamaserai of Honpou (Gueloupas) had come by night, under pretext of recovering a debt, and had killed his pigs, beaten his wife, and carried off his daughter. It is a dangerous thing to

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profess the religion of France at the portals of Thibet. Yet, despite the obstacles they encounter, their incessant anxieties, and the persecution of which they are the object, the Fathers, posted like sentinels along the line of the Mekong, await, with



A Tsekou Christian.

unwearying patience, constancy, and alertness, the day when they shall be admitted into Thibet to carry the banner of Christian religion forward to victory. We could not repress our admiration while they spoke of Thibet as of a promised land with an

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ardent zeal as unquenched at fifty, after twenty-eight years of tribulation, as at thirty. The traveller, whoever he may be, must needs honour these soldiers of the faith, whose life is made up of self-devotion and perseverance.

Our stay lasted for three weeks. I stood in need of rest, being a prey to fever and neuralgia; and the interval gave my comrade an opportunity of making an expedition to Atentsé, and of comparing his observations with those that Gill had made in the same districts. Meanwhile I had leisure to enjoy many long talks with the missionaries about the country they dwelt in, though, as I have no present intention of publishing an exhaustive study of these regions, the reader will not be surprised if I omit any discussion of more or less familiar topics, and only throw together those fragments of information which in the course of casual conversation seemed to me of rather special interest.

The population of Tsekou is composed of Mossos, Lissous, Loutses, Thibetans, Chinese, and hybrids. Tradition ascribes to the Lissous a southern origin, as their forefathers are reputed to have possessed elephants. A certain Chinese general having once upon a time subjugated them after revolt, reported to headquarters their complete extermination; after which, of course, their existence could not be officially admitted by the Government. But they continue to engage in partial rebellions, and look upon themselves as insurgents by nature. Those that are most active in such vocation are the Kimer Lissous, or Tchioui Lissous (Tchioui being Thibetan).

Suicide is of common occurrence with them: drowning, hanging, or poison is the ordinary sequel to a family quarrel. Their most usual method is an arrow poison which, when absorbed,

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causes a species of tetanus, with foaming at the mouth and speedy results. They have a prophecy that a chief shall come amongst them from the west, who will have a long beard. In the early days a missionary seemed to fulfil their expectation, and the first Fathers were in consequence called Peula (gods).

The occupations of the Christians are mainly agricultural, cattle breeding, small industries, and hunting. They make butter and cheese, finding the best milk-producer for dairy purposes to be the dzomo, a cross between a yak cow and an ordinary bull. One such will give nearly sixty lbs. of butter a year. The young of the dzomo rarely lives, or, if it does, is generally puny. To wean a calf the Thibetans have a method of fastening a board across the nostrils, which, while allowing it to crop the grass, prevents it from taking the udder. The calf is removed from its mother at a month old, and is nourished for a while by the farm wife, who masticates a sort of paste, which she then introduces into its mouth in a manner more forcible than elegant.

They also manufacture paper from the bark of a tree. After a double soaking, first in plain and then in lime water, the bark is reduced with a pestle to a pulp, which is again damped before being placed in a tank with a framework bottom, in which the substance settles, and when dry is turned out as paper.

Another industry which flourishes in Tsekou is the carving of drinking bowls out of the knots of certain trees, which, according to their shape or the manner in which they are grained, are highly valued as possessing a charm against a poisoned draught. Some of these dzops, or knots, are worth fifty or sixty taels.

One of the food resources of the mountain is wild honey, found in large quantities in crannies of the cliffs sheltered from the rain. To gather it the Lissous lower themselves by ropes,

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to which they give a slight oscillating movement, and each time their swing brings them within reach they knock some of the honeycomb into a basket. They take no particular precautions against the bees; but when they discover a swarm hibernating in the holes of the rock they sweep it bodily into a cloth, which is then wrung to express the honey from the bodies. Whole swarms are thus destroyed for the sake of a single cup of nectar. The hillmen are very skilful in unearthing the hives; they even pretend that they can track the bees by their almost imperceptible droppings upon the stones. These rock-bees are nearly always escorted by a little bird, to which the natives have given the name of the "bee king."

But hunting must be classed as the chief pursuit of both Lissous and Loutses. Their weapons of the chase are poisoned arrows, the tincture for which is extracted from a root, and is said to be very rapid in its effects. Thus armed, the natives attack the most dangerous animals, such as bears and panthers, using also swift dogs trained for the work. Before setting out great care is taken not to divulge the direction of the expedition, and the trail is followed in perfect silence. Arrived at the cover, an augury is consulted by means of lots, and, if necessary, delay is made till this shall be favourable. The traces of the game having been examined, posts are assigned and signals interchanged by horn blasts. Well versed in hill work, these men will scramble up the most rugged sides wherever there is hold for a toe, or scale the face of the rock with the aid of pegs of wood driven into the fissures. In such places they have to carry their dogs into the bargain. In this manner they will pursue the quarry for five or six days at a time, and rarely lose an animal they have once struck.

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There is another form of sport after vultures. The season for this is the winter, during the snows, when the birds are rendered tame by hunger. Baits are put out, and the first comers that pitch attract others. The men are in hiding, and, as soon as a sufficient number is on the ground, fling a net over the flock, often bagging as many as ten or fifteen at a single cast. The birds are quickly despatched with sticks. Their fat is highly esteemed for its healing properties for wounds, and vulture feathers command a good price from the military mandarins.



Another Tsekou Christian.

The Lissous are cunning snarers, and use their art in capturing the monkeys, which do much damage to the crops, especially the maize. A hollow tree trunk or bamboo is placed near the grain patch with a potato or fruit in it; the marauder inserts his hand, but cannot withdraw it when closed upon the dainty, which, rather than abandon, he holds on to, and is caught. So they say; but, like many mighty hunters all the world over, the natives do not let an exploit lose in the telling, and on the frontiers of Thibet a good story is not spoilt

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for want of imagination. Here is a contribution from Tsekou. A certain trapper having reached a ledge of rock found himself in presence of a she-bear and her cubs. At sight of the intruder, Bruin snatched her young ones to her breast. The hunter picked up a big stone and brandished it; whereupon his antagonist put down her children and did likewise. The man then uttered his Thibetan war-cry, "hi! hi!" which so terrified the bear that she dropped her stone upon the cubs and killed them.

Wild beasts are plentiful in the surrounding country. Among them mention was made of a large boar, called a patsa, whose tusks are a foot long, and whose flesh is scented with musk. Herds of budorcas (a kind of wild ox) have their habitat near the snowline, and when they come down to drink follow their leader in such exact file that the spoor appears to be that of a single animal. Then we were told of a black fox; and of a civet called the tululu; while the *nemorrhædus*, or "rock ass," is not infrequent. The flying squirrel too, with its beautiful coat, is the object of a lively trade; and the *Ailurus fulgens*, known here as the three-coloured fox, is met with. In addition there are porcupines, and the rhyzomi or bamboo-rat, which latter, however, is only found on the left bank of the Mekong.

The flora also exhibits many varieties. The natives have a dressing for wounds made of a composition of henbane, tobacco, and elder leaves boiled and put in oil. The fumes of henbane seeds laid on red-hot embers are inhaled as a remedy for tooth-ache. But if they avail themselves of plants that cure, they are no less apt in the uses of those that kill. Poisoner is an attractive name on which to levy blackmail, and everyone so charged must forthwith purge his accusation with a bribe. They pretend, moreover, that a deadly charm resides in a certain snake,

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which empowers it to change its shape and drop its venom in the cup. Father Dubernard instanced several cases where persons, chiefly women, had made full confession of the art with the persuasion of a little burning wax dropped on their shoulders. Under the circumstances one is not surprised.

Similarly, the judgment of heaven is commonly invoked in the following way:—Two pebbles, one black and the other white, are dropped into a bowl of boiling oil. If the accused can pick out the white one, he is innocent; but should he either shrink from the ordeal or draw the black, his guilt is established.

In all our conversations with the Fathers, Thibet and the Thibetans naturally occupied a foremost place. More than any other people in the world are these latter dominated by religious sentiment. From the piles of prayer-inscribed stones that meet the eye at every turn of the road; from their constant devotions in halt or on march, when the very winds and waters are made their intercessors, and no river can be forded without the sign of the cross upon the forehead; from their innate cult of the unseen and the marvellous, every event and condition is to them an occasion for superstition; while there exists not a peril which may not be averted by some practice, to their apprehension infallible, which has for its origin a belief in the supernatural.

By their own popularly received legend they are the offspring of a she-devil and an ape.

They maintain that sorcerers alight from the empyrean (as the Richis descend from the Himalayas at the birth of Buddha), and tell a tale of an individual who to prove his power of flight threw himself from a lofty rock. That this guileless person was dashed to pieces is regarded as a mere mischance. Within



Christian Women, Tsekou.

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the Lamaserais astounding deeds are credited to their votaries. They open their stomachs and readjust their intestines without a scar remaining; they walk barefoot upon the sword's edge, and feel no inconvenience; the living Buddha of Tchamoutong¹ heaps up water drops with his hand as one might ice morsels. And they of Tsekou have beheld these things.

One remembers that Father Huc brought back similar stories, and was taxed with credulity. And yet from fear of seeming untrustworthy he only related a tithe of what he saw. To corroborate either his experiences or the tales affirmed to me personally would require a protracted sojourn in the midst of the Lamas themselves, leading their life and sharing their ceremonies. It is not beyond the bounds of possibility that they can by the aid of forces little known to us, but yet consistent with nature, produce manifestations which analogy with phenomena observed in divers other times and places might render worthy of consideration; such, for instance, as those of levitation. Of course it is easy to dismiss with a shrug of the shoulders the remarks of one or even several travellers; but it might be more reasonable to suppose that others before ourselves have been able to recognise a power similar to that outlined by recent investigations, and have turned it to the advantage of their religious prestige. Be this as it may, the Lamas, whether sincere or the reverse, have not been above using deception. The liantay² of Lhaça revealed to the Fathers a ceremonial trick of theirs. He told

¹ Four days from Tsekou, on the banks of the Salwen, stands the Lamaserai of the Tchamoutong, the Lamas of which take their grades from the parent house of Dégué. It is the ancient foundation of a celebrated Mosso queen, Mutsien - tsong (daughter of the chief of a thousand men), or, as she was called in her own language, Azen diamo.

² Liantay : a special paymaster and delegate of the Chinese Government at Lhaça.

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them with true Chinese scepticism that at the installation of the Talé Lama,¹ before the public séance at which the newly elect has to pick out from a variety of objects exposed upon a board those that belonged to him in a previous state of existence, there is a private rehearsal to coach him in his part.

As is well known, the sects of the Lamas are numerous. The most ancient, as well as the most moral, is that of the Peun-Bo (Red Hats); within the sphere of whose influence every head of a family is Peun-Bo. Their books are very fine, and their principal divinity is the Nam-la-kerbo (white god of the sky). When the Lamas shave their heads they carefully preserve the hair and hide it in a hole in the wall; if they were to lose it a great evil would overtake them. Some have wigs, which they put on as a disguise when they wish to gad about in the evening.

The Thibetan invocation OM MANÉ PEDMI HOUṂ! is rendered in Chinese by O MV TO FOU!. Father Dubernard's explanation of the origin of the latter expression was the following:—The god Fou, called also Che-kia Fou, was born in India in the year kia-yn, on the first day of the fourth moon. His father, Tsin-fou, was the ruler of a small kingdom. Fou issued from the right side of his mother Moyé,² and at his birth, pointing one hand on high and the other to the ground, he proclaimed: “Of all things that are in heaven and in earth, I, and I alone, am worthy of veneration!” Married to a woman named Yeche, he had a son, Loheoulo. As he was for ever occupied in the chase, he paid no regard to his family. At the death of his father he became king, dissipated his

¹ The Talé Lama is a Chinese term for what is called in Thibetan changuen diao ri bochē.

² Maya.

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fortune, and retired to a mountain called Suechan, a place of pilgrimage for the Thibetans, where he lived on roots, and instructed a few disciples in metempsychosis till the time of his death at thirty, or, as others say, sixty years of age. He remained unknown to the Chinese until the Han or Tsin dynasty, when, moved by a dream, Minty sent two envoys O and My to seek him. But he was dead; and the emissaries only brought back his image. It was from the result of this mission that arose the invocation, o MY TO FOU (o my living Buddha)! But his worship was confined to a few. Hieutsang sent a fresh embassage to India, which returned with a bone of Fou, whose name in infancy was Mougny (Cakya Mouni). The emperor thereafter decreed that all his prisoners should worship Fou. Most of them escaped. From that time the followers of Fou were condemned to shave their heads and to ring a bell, as a means of identification. Such, according to oral and written tradition, is the origin of the Chinese bonzes.

Here are some of the Thibetan customs of this region:—

A visitor is not allowed to cross the threshold till a pipe has been smoked outside, and the new-comer is ascertained to be free from disease.

Blood brotherhood in Thibet is cemented by blending and then drinking the blood of the contracting parties; but after this mutual pledge all things are not held in common as in Madagascar.

When any beasts are lost a wand is with much ceremony held upright on the ground: its fall indicates the direction to be taken in the search.

In neighbourhoods where there are many panthers, the Thibetans burn scented sticks in a chafing-dish under their animals: this renders them safe from all attack.

In a case of an unpaid debt where the creditor has no proofs,

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he should seek to place his hands upon a child of the debtor. By this process a terrible malediction is conferred on the defaulter.

Should a rich man fall sick and fail of a cure, he procures a consenting pauper, dresses him in his own finery, gives him his arms,

and turns him adrift, in the hope that the evil spirit, hoodwinked by the disguise, will transfer his attentions, and torment him no more. But if no willing scapegoat can be found even for such a tempting bribe, a straw manikin may be decked in a similar fashion, and left outside. The clothes generally disappear, if not the disease.



A Tibetan of Tsekou.

Rich folk, when they have attained a certain age, hold their own funeral obsequies in advance with feasting and prayers for a good end.

When the Thibetans have to defer the burial of their dead for any length of time, they place the corpse in a doubled-up attitude, with the head between the knees and the back broken. It is

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curious that most of the mummies found in Central America have been in this posture.

The Thibetans are great hands at a story, and are much addicted to fables, of which the two subjoined may be taken as specimens.

THE FOX AND THE PARTRIDGE.

A fox having played a trick on a partridge, the latter determined to have her revenge. But first she had to lull him into security. "To-day," said she, "we are going to laugh fit to split our sides." "Good," replied the fox. Together they went into a field where there were two men hoeing. The partridge lit on the shoulders of one of them, and when the other aimed a blow at her she flew off, and his companion received the stroke instead.

Next day she resumed: "We shall be frightened to death presently;" and, hiding renard in a thicket, waited till a party of bonzes, who were conducting some rites over a sick man at a little distance, concluded the ceremony with cries and gunshots, which caused the fox the utmost alarm.

The third morning she remarked: "To-day we'll play at who can stretch their legs the farthest." So saying she led him by a path into the mountains where there was a trap hidden, and began to fly to and fro over the spot. "What are you doing?" quoth he. "Just amusing myself with a little game," said she; "won't you come and join me?" The fox, who by this time had perfect confidence in her, followed, and was caught by the leg in the gin, where his frantic struggles soon ended his life.

In this we see the Thibetan character for deliberate vengeance well portrayed.

THE BEAR, THE FOX, AND THE HARE.

A bear, a fox, and a hare were one day going along together when they met a man carrying a bundle. "Let's play him a trick," said the mischievous hare. "I'll sham lame, and when he pursues me you must run off with the bundle." No sooner said than done: the hare limped right between the man's legs, who dropped the bundle and gave chase, but in vain. Shortly after, the hare rejoined his companions in safety, and they proceeded to share the spoil. "You," said he to the fox, "are a hunter: this pair of boots will suit you admirably." And to the bear: "Why, here are a tambourine and a horn: just the things for your dear little ones when they cry!" The tsampa (millet flour) and meat he kept for himself.

Next day, when the fox put on the boots, he tumbled about in the

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clumsiest fashion. The bear went to her den, and, when her cubs cried for food, beat the tambourine, till they shuffled in terror to the back of the cave, and then gave them a blast on the horn, which killed them outright.

The hare meanwhile struck for home with the food in high good-humour.

The Thibetans are fond of recitative singing, accompanied by chorus and sometimes by dance. These are rough renderings of some of their performances :—

1st Voice.—Let song the dance prelude.

Chorus (full).—Let song the dance prelude.

1st Voice.—

Upon the mountain's yellow brow

The herds of musk-deer meet.

Chorus (full).—*id. repeat.*

Semi-chorus A.—

Thibetan, Tartar, Chinese, e'er

Can they be one, can they be one?

Nay ; from the first they stand alone

They stand alone.

Semi-chorus B. (bis)—

If peace should reign, they may combine.

id. " " "

Semi-chorus A.—

The sun, the moon, the stars, at once

May they give light, may they give light?

Nay ; till the day be turned to night,

Be turned to night.

Semi-chorus B. (bis)—

Now and again, twin stars will shine.

id. " " "

Semi-chorus A.—

The stag, the wild goat, and the sheep,

Will they consort, will they consort?

Nay ; till the hills with valleys sport,

With valleys sport.

Semi-chorus B. (bis)—

To pastured plain, yet all incline.

id. " " "

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Another—

1st Voice.—Let song the dance prelude.

Chorus (full).—*id.*

Semi-chorus A.—By Guidam, in the Orient, are three meres ; of gold, of silver, and of turquoise. Beside the sea of gold burns a golden tree, from out whose branches flies a yellow bird, piping to the tree, “ Rest here in peace ; I go.”

Semi-chorus B. repeats *id.*

Semi-chorus A.—By Guidam, in the Orient, are three meres ; of gold, of silver, and of turquoise. Beside the sea of silver glistens a silver tree, from out whose branches flies a white bird, piping to the tree, “ Rest here in peace ; I go.”

Semi-chorus B. repeats *id.*

Semi-chorus A.—By Guidam, in the Orient, are three meres ; of gold, of silver, and of turquoise. Beside the sea of turquoise springs a turquoise tree, from out whose branches flies a blue bird, piping to the tree, “ Rest here in peace : I go.”

Another—

1st Voice. Let song the dance prelude.

Chorus (full).—*id. repeat.*

(*Guests from afar greet the hosts within the house.*)

Semi-chorus A. (guests without).—“ We are guests from a far country ; say, is it well with the chief ? ”

Semi-chorus B. (hosts within).—“ The chief is well.”

Semi-chorus B.—“ Guests from a far country : say, is the Lama in peace, in health ? ”

Semi-chorus A.—“ The Lama is in peace and health.”

Semi-chorus B.—Guests from a far country ; say, are father and uncle in peace, in health ? ”

Semi-chorus A.—“ Father and uncle are in peace and health.”

Semi-chorus B.—“ Guests from a far country : say, are mother and aunt in peace, in health ? ”

Semi-chorus A.—“ Mother and aunt are in peace and health.”

Another—

“ Elder brother, elder brother, that gay kerchief of crimson silk around thy head, is it thine or is it borrowed ? If thy very own, so may

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it be ever thine. How! borrowed?—then canst thou at best but enjoy it three days."

"Elder brother, elder brother, that rich gaou¹ which adorns thy breast, is it thine or is it borrowed? If thy very own, so may it be ever thine. How! borrowed?—then canst thou at best but enjoy it three days."

"Elder brother, elder brother, those garters of many colours that gird thy knee, are they thine or are they borrowed? If thy very own, so may they be ever thine. How! borrowed?—then canst thou at best but enjoy them three days."

Another—

Semi-chorus A.—“My friends, my country is the fairest upon earth.”

Semi-chorus B.—“Fair country, quotha! There is not where to build a house. To build he must leave his fine country.”

Semi-chorus A.—“My friends, my country is the fairest upon earth. In a strange land there is nor peace nor joy. I hie me back to my own country.”

Semi-chorus B.—“Fair country, quotha! There is not where to rear a palace. To rear palaces he must leave his fine country.”

Semi-chorus A.—“My friends, my country is the fairest upon earth. In a strange land there is nor peace nor joy. I hie me back to my own country.”

Semi-chorus B.—“Fair country, quotha! There is not where to found a forum. To found a forum he must leave his fine country.”

Semi-chorus A. (fin.).—“Friends, my country is the fairest upon earth. In a strange land there is nor peace nor joy. I hie me back to my own country.”

Another—

Semi-chorus A.—

The poplar of itself has taken root,
Of itself it has risen like the hills;
Its branches skyward shoot:
The earth has fertile grown,
The land a gem.

Semi-chorus B. repeats id.

¹ A reliquary.

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Semi-chorus A.—

The bamboo of itself has taken root,
At Tsarong, of itself, like the hills;
Its branches skyward shoot:
The earth has fertile grown.
The land a gem.

Semi-chorus B. repeats id.

Semi-chorus A.—

The grape-vine of itself has taken root,
In the land of the Mosso, like the hills;
Its branches bend with fruit:
In the jewel of all gems.
The Mosso land.

Semi-chorus B. repeats id.

Another—

In a rich valley a golden kieutigne rose:
Of colours five the cone.
There came a rain
For years, one, two, and three:—
And the colours of its dome were gone.

In a rich valley a silver kieutigne rose:
Of colours five the cone.
There came a rain
For years, one, two, and three:—
And the colours of its dome were gone.

In a rich valley a marble kieutigne rose:
Of colours five the cone.
There came a rain
For years, one, two, and three:—
And the colours of its dome were gone.

The kieutigne is a building in the nature of a dobang or religious monument, often passed upon the roads of Thibet, but more lofty and of better construction. The moral of the song is the old one, *tempus edax rerum*.

One could go on collecting these dance chants to almost any length. They are of every kind, patriotic as well as erotic. Most

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of them are improvised on the spur of the moment, the two semi-choruses engaging in an extempore encounter of wits, like a more or less literary joust, where the art lies in catching a fleeting cadence or a rhyme.

On the 30th (August) Roux returned from Atentsé: the loss of a mule, the drowning of poor little dog "Pinaud," who seeing his master crossing by a rope bridge tried to follow him by swimming the river, and a night alarm with a panther in a barn, formed the only incidents of his excursion. He had sighted the three snow peaks of Dokerla (stone ladder), with its fine glaciers on the right bank of the Mekong, and estimated their height to be about 17,875 feet. Dokerla is a sacred mountain of Thibet, to which a pilgrimage is made in the year of the sheep, *i.e.* every twelfth year, and, as it happened to fall at this time, the "Doctor" had met many folk from Tsarong. The women he described as wearing over their tchaupas a sleeveless frock-tunic of poulo stuff, with horizontal stripes in brown, blue, and white. In their hair was a silver disc for ornament.

Atentsé is a little town of three hundred families, perched at an altitude of 10,725 feet, and, being one of the gates between China and Thibet, holds a position of some commercial importance. A portion of its inhabitants settled there from Chan-si more than five hundred years ago.

Trade consists in :—

Musk : eight or ten mule loads per annum, sold at seven times its weight in silver.

Ouaulien : a root used as a tincture and a drug, brought from Dzayul, and sold at forty taëls the load.

Gold : in small quantities, sold at eighteen times its weight in silver.

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Raw wool.

Madder : from Tsarong.

Ka : a red dye obtained from an insect of Assam, the residue of which is used in making sealing wax.

Copper: from Yünnan. At Atentsé there is an accredited agent from Lhaça, styled Deba, for the purchase of wrought copper for the large Lamaserais. For its transport he can command a corvée of the people.

Tea : intended for Lhaça, being a monopoly of Tatsien-lou, only a little passes through Atentsé.



H. YET

Girl from Tsarong.

CHAPTER VII

TSEKOU TO KHAMTI

Choice of Homeward Route—Caravan Re-formed—Start in the Mekong Valley—Fears at Landjré—Early Obstacles—Francis Garnier Peak—Valley of the Salwen—Loutses and Kioutses—Tionra: Crossing the Salwen—Relations with the Lamaserai of Tchamoutong—Mules Abandoned—On Foot—Tamalou—In the Basin of the Irawadi—The Kiou-Kiang—The Kioutses—At Toulong—Difficulties of Recruiting and Re-victualling—Mosquitoes on the Banks of the River—Rock Climbing—Deidoum—Aspect of the Kiou-Kiang Valley—Our Men—Gold-Washing—News of a Large River and a Plain—The Du-tchu-mu—Perilous Position—Saved—Leeches—The Big River; Telo and Dublu—On all sides Mountains—Painful Torrent March—Death of “Diamai”—Duna—Apon Explained—Equatorial Scenery—A Large Village—Beside the Nam Tsan—Fish-Dam—A New Race—Pandam—No Salt—Mélékeu—People of Moam (Khamti)—One more Col—Village Fête—The Plain.

OUR stay at Tsekou was longer than we had anticipated. The need of rest (for a fortnight fever only left me to be succeeded by neuralgia and other ills), the despatch of our men, preparation for further advance, and the enjoyment of repose in the congenial society of our fellow-countrymen, all combined to detain us.

Now arose the question as to what routes were open for selection. Having rejected the idea of returning by the south to Burmah, which would involve retracing a portion of our steps, and having negatived the already known eastern roads through Yünnan, our eyes were fixed upon the west.

If, after ascending the Mekong for several days from Tsekou, a turn should be made in this direction, we should fall upon the Thibetan province of Kam, a dependency of Lhaça. The

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district is governed by a *tiquié* resident at Kiangka, with under him three *debas*, and below them again three *chelugong* at Menkong, Tchraïa, and Dzayul. Around the Lamaserai of Menkong, which is situated at three days' journey from the Mekong, stretches the Tsarong country; and beyond Tsarong the rich valley of Dzayul (land of the earthen pots), whence streams descend to the Brahmaputra, as shown by the pundit Krishna. Finally, westward again beyond Dzayul, between the Tsangpo and the Lohit lies the Brahmaputra, in the Bayul—a mysterious land if ever there was one, unmapped, and as free in the past from European exploration as in the present from the prying eye of Russian or Indian scouts. The Bayul or Pourba is divided into Po-Ten (upper) independent, and Po-Me (lower) subject by payment of tribute to the second kinchas of Lhaça. Among the Thibetans of the north the Bayul is renowned for its robbers and its horses, and the country is reputed rich in gold. The inhabitants wear hats of ratan, and sell baskets made of the same material.

From Tsekou a road goes north, which, after skirting the Dokerla and crossing the Salwen, leads to Menkong, and farther to Sanguias-Kiendzang. This route offered temptations, as supposing Sanguias-Kiendzang to be attainable we should there find ourselves at the entrance to the Bayul, and, if access to it was rigorously denied, there would remain the alternative of taking up the itinerary of Krishna by Roema and Samé. Only, in the latter event we should not make many explorations.

In order to get to Sanguias-Kiendzang, Tsarong must be crossed—a dangerous province, the Lamas of which have been systematically hostile to the missionaries. Moreover, it would not be on the Chinese that we could reckon for support against

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the native authorities, still less upon fellow-racial Thibetans. In addition, in the remote possibility of our success, the fact of leading men from Tsekou into Tsarong would assuredly bring down reprisals upon the Christians and our countrymen for assisting us. In my opinion the check appeared certain, and the attempt therefore useless. We were wayworn, a journey into Thibet would be very long, winter would be on us closing the passes, and we should not improbably end by having to spend several months in some remote valley. Albeit we were here actually at the threshold of Thibet, all these considerations forced us to renounce the idea of penetrating farther, and, though it cost us some regret to relinquish the route to the north-west, we felt that the success of our main enterprise would console us for having abandoned an achievement so dependent on chance.

The upshot of these reflections was that we decided to strike due west on the Salwen, which we should cross to enter Bayul. The region which, south of Dzayul, is watered by the upper basin of the Irawadi, is designated by the name of the Rotin (ratan). Bayul itself is in part a dependency of the mokoua of Yetché, some Dzayul families, and the Lamaserai of Tchamoutong, and partly free. The only particulars we could gather with regard to this country were that it was watered by the Kiou-kiang, that the ways were very bad, and that naked savages inhabited the trees.

In this manner we were about to embark on the hitherto entirely unknown, with the hope of being enabled to solve the problem of the sources both of the Salwen and the Irawadi, and with India for our Promised Land, approached by a new route, and longed for as a haven of rest.

We reduced our baggage, retaining only twelve mules besides

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our own saddle animals, and sending fifteen back to Tali under the charge of the makotou, with whom also went our collections up to this point. The men who left us received a month's pay; and on the 3rd September Briffaud and I went out to see the column depart. The waters of the river having risen, some difficulty was experienced with the mules at the crossing, but with the help of extra guy-ropes all were eventually slung across in safety.

Of our old band we now had only the two Annamites; Fa, Roux's henchman; and another Fa, a young Christian of eighteen, whom we dubbed Siao (little) Fa for distinction. Lastly, there was Joseph, the indomitable, of course still anxious to share our fortunes. In remitting some money for his family by the makotou he took care to consign it to Father Leguilcher; "for," said he. "if my wife has it in her hands she will be sure to buy superfluous things." Prudent man, he knew the feminine nature.

For new mafous we engaged twenty-four hybrids of Chinese, Thibetan, and Mosso race. If the mules could not get on we should send them back and replace our four-legged carriers by bipeds. This troop was composed of eighteen Christians and six pagans, a mixture provided with a view to secure the missionaries from any future molestation on our account from the local authorities. The hiring of the heathens was not done without difficulty. They were supplied by the chief of a neighbouring village, the bessé of Tsedjrong, a hypocritical rascal, all devotion to our face and detestation behind our backs. It was he who had destroyed the Fathers' bridge, and was seeking by every means to dislodge them from Tsekou in order that he might lay hands on their property. And in return for this treatment they advanced him money wherewith to pay the taxes and escape the

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prison at Ouïsi. It was an undeserved good fortune that brought him into relations with such charitable men. He tried to foist upon us some of his own kindred, demanding a guarantee in writing against any mishap that might befall them on the road, and got from us a suitable answer. The missionaries suggested that the heathens should enter into a written engagement, to be cancelled if incapacitated by sickness or other accident. The Tsedjrong folk then drew up a form of contract, but couched in impertinent terms, alluding to Father Dubernard as "the Tsekou Chinaman," and filled with misspellings by the bessé in order to hide its authorship. We rejected the document, and it was afterwards rewritten in conformity with our wishes. The men were to have six taëls a month—high pay for these parts. We provided them with food, and each received two taëls in advance to leave at his home. The Christians requested that their wages should be deferred until their return; and, calculating the journey at three months, we left a sum for them in the hands of the Fathers, only to be redeemed on production of a certificate from us. This may be taken as an instance of the trust and respect inspired by our countrymen in that region, when Christian and heathen alike, rude but home-staying and timid by nature, were willing to enter an unknown country of ill repute in our service upon the simple bond of the Fathers for our honesty.

We have incurred a debt of gratitude to the French missionaries which we can never adequately requite, and I am fain here once more to place on record my recognition and regard. Without their timely help we could never have brought to a successful issue, nor even prosecuted further, our expedition into India.

By the 10th of September our arrangements were made, our supplies collected, and money deposited. It took some time to

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calculate the last in a country where neither a coinage standard nor paper currency were in use, and value goes by weight. The business occupied a whole day. We left with the Fathers sixteen hundred taëls, carrying with us only the smallest possible amount.

Our personal belongings, fine by degrees, were speedily packed, and still more quickly loaded. It was wonderful to watch the address with which the Thibetans harnessed the animals. They adopted a different method from the Chinese. On the beast's back were laid three pads with two small boards on top, breast and crupper straps held in position a splinter-bar which in steep descents pressed on the flanks; the pack-saddle, not detachable *en bloc* as in China, was fastened by a girth; and the load, instead of being placed horizontally, was secured vertically to the boards by thongs; by this means less angles were exposed in narrow defiles than by the Yünnan method. Some packages were put on the men's shoulders. We now had eleven pack and six saddle mules, and with twenty-three porters and muleteers (three having been despatched in advance to buy provisions on the banks of the Salwen) an imposing troop of thirty-four men was formed. Well as I already knew them, I could not but be struck afresh with the cheery animation and activity of the Thibetans. They seemed to have real blood in their veins, a pleasing contrast to the inertness which is so exasperating in the Chinese.

At our departure a fine rain was falling. Notwithstanding the dulness of the skies, each one of us felt light-hearted to be once more *en route*, bound for the unknown, curious as to the secrets of the Salwen, its inhabitants, and what lay beyond.

On account of the wet, most of the men carried their wool boots slung Thibetan fashion round their necks, and on

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slippery ground went barefoot. As we threaded the upward valley of the Mekong we passed through Tsedjrong, where our friend the bessé awaited us with a scraggy duck in his hand as a present, nor was he above accepting a rupee in acknowledgment. Beside the rice-fields which we traversed there grew a plentiful crop of tares, the peasants professing that in addition to their furnishing good feed for the cattle, by cultivating them on the confines of their plots they prevent them overrunning the latter.

At 11.30 Fathers Soulié and Liard bade us adieu. Father Dubernard continued with us a space longer. Clad in a velvet vest and a large red hood, *à la Chinoise*, and mounted on his little white horse with red neck-tassels, the "Chief of Tsekou" with his long white beard appeared like some patriarch of bygone days, an object of veneration. At midday our men made a halt of an hour and a half, much shorter than that of our old caravan. None the less were the packs lifted off, a fire promptly lit, and the tea thrown into the pot to boil. The beverage was then poured with some butter into a wooden tube fitted with a strainer, and stirred with a long spoon. Each man brought his porringer for his share, which, with a ration of tsampa,¹ kneaded into balls, constituted his simple repast.

As we proceeded through the village of Regny the natives that met us saluted us by clasping their hands, or more often with palms uppermost as if for an offering, and by inclining their bodies. Among them was pointed out to us one, a hunter, who had committed several murders, but whom none dared arrest. At a little distance from Fan-fou-pin superstition marked the abode of a djin to which respectful perfumes are

¹ Tsampa—millet flour.

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burnt from afar. In the village of Seré, where we stayed for the night, we were the recipients of gifts, in token of gratitude to Father Dubernard, by whose intervention a portion of their belongings had been saved to the people from the expedition of the mokoua of Yetché. Those of the villagers who were too poor to have *gaous*¹ carried round their necks amulets hidden in bamboo tubes. The women had their hair parted in the middle and hanging down behind in a number of tails, united lower to form a plaited queue. We slept in a Thibetan house, with a ground-floor of lime-washed walls and a spacious terrace, on which stood a row of small white pyramids, holding bunches of bamboo and serving as altars. Over the door was a stone bearing the inscription, OM MANÉ PEDMI HOUN, surrounded with serpents.

On the 11th (September) we took leave of Father Dubernard, and pursued our way up the course of the river. The road led beneath a defile formed of mighty, jagged rocks, called by the Thibetans the second gate of Sima-Chan; the first was at Lota. Cooper named it the Gorge of Hablus, in memory of his protector.

Near the village of Gotra we made our breakfast beside a hot sulphur spring, the waters of which were at a temperature of of 113° Fahr. Nam caused some amusement here: as he was suffering from sore legs, we counselled a warm bath; whereupon the simple Annamite without hesitation jumped into the torrent a hundred yards farther off. Beyond Gotra we redescended to the actual brink of the Mekong through forests of superb coniferae, and, after crossing a foaming torrent, camped in the brushwood on the far side. This was our last bivouac on the Mekong.

¹ Gaous= reliquaries, charms.

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The force burst chafing from a narrow breach of wild and lofty grandeur, which it seemed to have riven for itself in its escape from the ravine; the sides were lined with horizontal strata, revealing the geological formation of the innermost mountain; and the glen disclosed a bottom of grey stones sown with needle-pointed firs. But so constricted was the entrance, and so forbidding the aspect of the beetling cliffs, that it looked barely possible that we could penetrate their recesses.

It was, however, through this pass that our route of the 13th (September) took us, when we left behind for good the actual Mekong valley to turn our faces to the west. The path clung in zigzags to the wall of rock, shored up in many places by props of wood driven into its face. It was as fine a piece of engineering as one might see in Switzerland, but hardly looked to meet with here. Once through the rift, our descent was fairly rapid, having sombre fir-clad boulders on our left and a towering red cliff over against us. This part of the scenery was very fine, and recalled that of the cañons in the Rocky Mountains.

A bridge being reported cut in front, our men asked us to go forward; and we learned that the Lamas of Tchamoutong had received orders from Sanguias-Kiendzang to impede our progress by all means in their power, threatening with death anyone who should show us the road to the Salwen. We paid little heed to these rumours, as we knew that Tchamoutong had not had time to communicate with the other and receive a reply; but they had their effect on our men. Sure enough, about two hours farther on we came to the site of a bridge of which one spar alone was left, and that a rickety one with barely breadth to put one foot before the other. The rest of



Torrent Scene, 13th September.

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the beams had been withdrawn to the far side. At great personal danger one of our porters got across, and, fastening a noose to the planks, in half an hour we re-established the connection.

We then advanced with our guns at the head of the column down a widening valley till we came to the village of Landjré. It was built at the confluence of two rapid streams, with large Thibetan houses situated on terraces in the midst of fine culture, chiefly maize and walnuts. Here two roads branched—one to the left, which we should follow; the other to the right, leading to Tsarong, and used by the pilgrims of Dokerla returning from the Mekong. Any other

route would have vitiated their pilgrimage. In the entry to the village were some *obos* and a *kortchen* (a little erection in shape like a lotus bud), and from the roof of the latter projected a staff, supporting several iron rings and a red crescent.

At our approach the inhabitants came out in astonishment, but



An Obo.

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with friendly salutations and no demonstrations of hostility. I asked why they had removed the bridge, but only elicited the invariable answer, "Jem pou té" ("I don't know"). Nearly as bad as Maitre Pathelin's "bê."

Through our men we heard that these villagers had cause to fear the Lamas. Placed on the frontier of Thibet, Landjré has to stop all strangers, and would suffer for any neglect of orders. Great was their relief, therefore, when we did not take the road to Tsarong. We pitched our four tents in the fields above the place, and, despite a rainy evening, the men danced round the fire with little apparent concern for the future.

The next day, and the next, it rained, with only slight intermission. We marched through virgin forests, where the large-leaved bamboos soaked us through. A rare gleam of sunshine lit up a savage scene of torrent, rock, and tree, of which it would be hard to convey an idea. Pines, and oaks, and giant chankas, with boles of 18 feet diameter and long grey beards of pendent creepers, choked the slippery path with tangled roots and fallen trunks. It took the mules six hours to accomplish what we did in three. Our camp of the 13th (September), among lilies and rhododendrons on the edge of the euphoniously named torrent Lili, we called Tululu, after a sort of civet which we had seen in the woods. Our men had the inspiration to lead with them from Landjré two of the long horizontal-horned sheep of the country. The 14th (September) was a heavy day. We crossed the Lili, and mounted the left bank by sliding zigzags, where the mules fell constantly and the men had to carry most of the loads. Above the zone of rhododendrons, and "water, water everywhere"—in the grass, on the rocks, in the atmosphere, with the thermometer only 3 above freezing. I think if one wanted stage scenery for the

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" Realm of Rain," here would be the spot to study it. At length we ran the stream to its source in a swamp. This was the col, 12,350 feet, and the limit of the basin of the Mekong, which we were about to quit. The col marks a depression in the chain; above it and around, the summits are of great height. To our left rose, grim and grey, a formidable array of fanged ridges, presenting a confusion of pinnacles like the spires of some Gothic monument. To the highest of these we gave the name of Francis Garnier Peak, in memory of the famed explorer of the Mekong.



Francis Garnier Peak.

On the other side of this neck, and about 600 feet lower, we landed in a wide morass, impossible of circumvention, and had no choice but to plunge boldly through. The deep baying of a dog now betrayed the vicinity of a little hut, whence we were greeted with the Thibetan alarm-cry, "Hiihihi!" However, the

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occupants proved to be not more terrible than four herdsmen of Landjré, who spend six months of the year on the pastures with their cattle, a few oxen, half-bred dzas, and black yaks, with their comic tufted tails. Round the cabin, which was open to the four winds and very cold, were ranged wooden kegs, used as churns. Their method is to stir the milk in them with a circular perforated paddle until the butter comes. This removed, the residue is poured into a large pot on the fire, and the whey as it rises is strained off through a basket, while the curds are dried at the fire. Their spare time they employ in carving wooden bowls and spoons, always singing at their work, and subsist on the ordinary Thibet fare of tsampa, and tea flavoured with butter. Even here, on the tops of their mountains, in their miserable shanty, they do not omit the observance of their religion. There was a shrine on a stone; and before drinking the tea our hosts poured a little into a saucer, which they placed before it. On seeing that I observed the action, they raised a hand simply towards the sky. There was something grand in the childlike faith of these half-clad shepherds.

Some of our men had to pass the night in the open, beside the packs which had not reached the summit. They were to be pitied. In the general misery Nam excited my compassion as much as any. He arrived benumbed and speechless, and had to be rubbed down by the fire before his features relaxed into that most hideous grin with which nature ever disgraced human countenance, whilst he fumbled for his pipe. It was a far cry from the chill mist and crags of Thibet to the warmth and palm-trees of Saïgon.

15th (September).—In the clearer morning air the outline of Francis Garnier Peak was sharply defined. I profited by the intermittent arrival of belated baggage to do a little botanising,

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and, notwithstanding the lateness of the season, was still able to obtain twenty-six specimens of mountain flora. The yaks had gone early on to the pasture. There they showed, black dots between the rocks, conspicuous among the other cattle from their bison-like humps. One large male stood sentinel apart, and gazed on us with wonder.

Before leaving we bought the watch-dog of the herdsmen, an animal of the fine Thibetan breed, black and tan, with short muzzle and massive head, adorned with a regular mane. He was named "Diamai" ("red"), and would be a chum for the small terrier "Boursica," given us by the Fathers. The same evening, after a downward climb to bivouac among dripping rhododendrons, Diamai, an elderly carrier, and one of the sheep, failed to answer the roll-call. The two following days we kept on through damp forests, mostly in drenching rain. All were now on foot; in my case luckily, since my mule had a nasty fall in one spot. On the third morning we came upon our stragglers, the old porter seated by some half-burnt logs, smoking his pipe, between the dog and the sheep. They had lost the way, and so got ahead of us in the dark. We could not sufficiently praise our men, who, without a dry stitch upon them, performed their arduous toil, which now combined that of mafou and carrier, without a murmur, and generally ended up the day with songs and laughter round the fire. As for ourselves, we had now got our walking legs, and were fit for anything. But for the eternal rain, it would have been delightful.

On the 18th (September) we emerged from the woods and came into the region of dwellings again, passing presently the hamlets of Feu-la and Meuradon on an affluent of the Salwen. Wretched collections of huts upon piles they were. The inhabitants were Loutse. By Loutses were no longer meant, as

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before, Tsekou Lissous frequenting the valley of the Salwen, but several distinct tribes with their own language and customs.

The Loutses belong to an interesting race hardly met with in the latitude of Tsekou. They are bounded on the north, at two or three days' distance from that place, by the folk of the



Kioutse Types.

Tsarong, scattered among whom a few rare Loutse families are to be found. A few days to the south their limits are with the Lissous, of whose incursions we had heard so much in the course of our ascent of the Mekong. The Loutses therefore occupy the mountains between the Mekong and Assam. At the height at

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which we crossed the Salwen they styled themselves Anous ; a little farther north, Melams ; and, advancing westward, at Tamalou, Diasous.

In the basin of the Kiou-kiang the mountaineers are termed by the Chinese, Kioutses. They are closely akin to the Loutses, possessing almost the same dialect. Their precise denominations are successively Toulongs on the banks of the Kiou-kiang, Tandsards by the river Télo, Reouans at Duma, and Louans at Pangdam. The people of Khamti, that is to say the Thaïs, know them under the generic title of Khanungs; and this is the name marked on the English maps. The same Khamti Thaïs call the Mishmis, Khamans. It is probable that the first syllable, Kha, is identical with the name by which the Laotians describe the hill tribes of Indo-China. Kha would mean a sort of domestic slave. Finally, the Thibetans speak of the Loutses as Ngias (imbeciles). The Loutse language differs entirely from the Lissou, and contains but few Thibetan words. Its construction, too, is dissimilar.

The Loutses relate their own origin thus :—There lived formerly on Pémachou (a mountain which we afterwards saw on reaching the Kiou-kiang) a man and his wife who had nine sons, each of whom in their turn married. One became king of Thibet, and another king of Pekin. Then these two asked their seven brothers for money. The latter refused, and proposed to make war on them. But the mother interceded, saying, "I am the mother of you all. Do not quarrel; you seven ought to give each a little to the two who are kings." Her counsel prevailed : and that is how the seven, who peopled the district of the Loutse-kiang and became the Loutses, came to render tribute to China.

Like the Lissous, the Loutses are not the owners of the soil.

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When they wish to clear a mountain they pay a sum to the mokoua or to their chief, who will later adjudge the impost of the village. But he can also, if he likes, evict the new tenants. On the frontier of Thibet these hillmen come freely into the Lamaserais, but are spectators only of the religious exercises. The Loutses are usually, but not by law, monogamists.

A proposal for the hand of a daughter is made by offerings to the parents—some wine, a knife, or a pot, on the acceptance of which depends that of the suitor. Their consent acquired, a betrothal feast ensues, with more gifts from the bridegroom—larger jars of spirit, a pig, a pot, a tripod, ear-rings, and a tchaupa (Thibetan



Loutse Types.

garment), with the necessary viands. The newly wedded husband visits his bride at his discretion; after a year of probation the wife takes up her abode with him. Should any discord arise, the parents must return the son-in-law's presents. Among the polygamous Kioutses the marriage rules are simpler. If the wife does not present her spouse with an heir he does not pay for her. There are few good looks and little modesty among the families

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or tribes. The inheritance of the sire is shared amongst the sons, and a father can disinherit a refractory son. In dress the men follow the Thibetan fashion. The women are attired in two garments—one fitted to the figure, the other looped from under the left arm to the right shoulder. Sometimes they have a white fillet like the Lissous, their hair either loosely gathered into a net, or shaved, leaving a toupet in front. Two ladies we observed with rectangular green tattooing on the nose and cheeks; they were heiresses. Nearly all the females carried a small distaff, with which they spun hemp unceasingly. Assassination is not regarded as a heinous crime, but blood money is sometimes exacted. The dead are buried with the usual symbols of the deceased's occupation on the grave. They believe the deceased go to a beautiful land if they have done good, and if not that they rejoin the bad spirits. The Kioutses have their witch-doctors, and sacrifices for the sick; but diseases are rare, and centenarians not uncommon. Venereal complaints are unknown. When a malady declares itself, a fowl or a pig is vowed to the evil spirit. In the house where we slept a sorcerer was engaged in exorcising such a one from a sick woman. The rites resembled in the main those we had witnessed on a former occasion, save that in this instance some little wax images were employed, which were anointed with tsampa and water, and placed in the fork of a big tree outside that was supposed to have had an ill influence on the patient. The physician went through a variety of incantations and facial contortions, and finally touched the sick woman's head with a peacock's feather. But he smiled at me the while.

At Meuradon we found one of our men whom we had sent before us from Tsekou. He had been as far as the Lamaserai

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of Tchamoutong on the right bank of the Salwen, and pronounced the Lamas well disposed towards us; but added that the mules could not pass beyond that point, and that we should be obliged to go two days farther down the river to find a practicable route to the west.

At Tionra, where we were only five hours' march from the Salwen, we were glad of a day's halt in the regained warmth of the sun. The Loutses here were mild-mannered and hospitable, but wretched and dirty in the extreme. Their physical attributes were, well developed but receding foreheads, the countenance larger than the Thibetans, with eyes not oblique like the Chinese, and the facial angle rather sharp. The women were little round-about beings.

The 21st and 22nd (September) were employed in the passage of the Salwen. All our party were in high spirits, and the cattle rested. At the request of the men, the mules were given a hash of raw fowls and salt, avowed by the Thibetans to be a rare pick-me-up for beasts of burden. We ferried over in skiffs about 16 feet long, hollowed out of trunks of trees. From two to four men manœuvred them with small oars. The crossing was an easy matter compared with that of the Mekong at Halo; there were no real rapids here, and counter-currents could be taken advantage of. The temperature of the water was much the same as that of the Mekong at the same height, being 60° Fahr.; but a neighbouring tributary from the mountains registered nearly 6° higher.

On the right bank we received a messenger from the Lamaserai of Tchamoutong, distant now only a few miles, who announced that the superior had under him seventy-six Lamas ("Red Hats"), that he was afraid to come himself to meet us in consequence of

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an injunction from Tsarong against allowing us to enter Thibet, but he sent us by two of his Lamas gifts of tchang, flour, and butter, as well as other provisions for sale. These holy emissaries took frequent pinches of snuff from a little horn. In return I charged them with chromolithographs for their chief, and astonished them by exhibiting photographs of their Grand Lama at Lhaça. It was politic that they should take with them the tale that the French were evidently on good terms with them of Thibet.

On the 23rd and 24th (September) we continued down the Salwen by a good road. As is the case lower, the valley is greener than that of the Mekong, with flora almost approaching that of warm countries. The trees were literally decked with tufts of orchids, whose yellow and brown spotted blooms hung in odoriferous clusters: this might appropriately have been named the Orchid Valley, a paradise for amateurs. Creepers abounded, one in especial with thick leaves and scented white waxen flowers, which I have seen in conservatories at home. Another shrub, too, I noted for its fruit, like the arbutus, but containing a delicious cream. Djewan was our stage, and here we gleaned a few meagre particulars about the Kiou-kiang. Mention was also made of a larger and further stream called the Nimer. The people told us that the son of the chief of Ngaihoa, whom we had seen as we passed through that district, had been seized by Lissous while trafficking on the Kiou-kiang. He had saved his life, but lost his merchandise. Most of the inhabitants of Djewan were Lissous, but pacific—at least towards us. Our host was a Chinese trader of Setchuen. He collected chiefly drugs, amongst others a large tuber found in the root of rotten pines called fouline, which is held in much estimation in Chinese pharmacy.

After Djewan we worked westward again, and for two days

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reascended by the bed of a small tributary of the Salwen. But the higher we went the worse grew the path, till it was no better than a track through sodden brake and over abrupt declivities. Great thorny thistles with yellow heads choked the hollows, through which the mules, even stripped, could hardly struggle. The unloading and loading went on incessantly. Our progress was, in consequence, almost nominal, and on the 27th (September) came to a dead stop. We therefore called a halt to allow the stragglers to close up. Here, in response to our oft-repeated inquiries, two Lissous spoke of a district on the Upper Kiou-kiang called Dutchu, where one half of the denizens were robbers and lived in holes, and the other half were timid and slept in trees. Beyond the Kiou-kiang were three mountains, then a big river named Tersa, where we should find rice, and black Lamas, and, further, Chinese (?). Valuable information, forsooth! However, the more mysterious this region the more we desired to find it.

In the evening our scouts came in on the main column, and reported no possibility of getting the mules any farther. We held a council of war, and decided to push on afoot for the next village with a few carriers, whom we could send back with food to the succour of the rest. In accordance with this resolution, on the 28th (September) we set forward, and almost immediately afterwards the wood closed upon us. Our men had not lied. There was not so much as a track. We followed the general direction indicated by broken twigs. We did not mount, we did not descend —we simply gave ourselves over to gymnastics. Clambering over roots, grappling with trees, now bestriding a huge trunk, anon crawling on all-fours, foot by foot we won our way. We slid, we tumbled, we saved ourselves by a vine, and, when we found a square yard to stand upon, stopped for breath. On one such platform,

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of rather less precarious dimensions, we made our midday meal. Water was running among the boulders in a bed of felspar granite, moss and red orchids tapestryed the sheltering wall of rock. On their arrival at the big tea-kettle, the first care of the Thibetans after dropping their packs was to draw forth their bamboo-root pipes, and in blue clouds of tobacco smoke to obliterate their trials. None can tell the full enjoyment of a pipe after the hardships of a march like this. Nam shared our view as he squatted like a Buddha ruminant. I believe a cataclysm would not shake him out of a casualty greater even than an American's.

Naturally, there was no further question about the mules. We sent back word to the headman to forward all the packs he could, and to leave the animals where they were under a small guard. For the present it must be *pedibus cum jambis* for us, like the great Tartarin. But this was something like exploration. The enjoyment of the work grew on me. And added to it all was the distant pleasure of dropping in upon the English by a road they did not know.

We had thought our efforts of the morning laborious : they were nothing to those of the rest of the day. Close following on the escalade of a crag by the help of two notched tree trunks, there succeeded a struggle up an almost perpendicular rampart of damp soil, where, while digging one's elbows into the surface and clutching the tussocks, a slip would seem to have set one rolling to eternity. I own I did not dare look back for fear of giddiness. Shortly before nightfall we bivouacked on a ledge hard by a patch of snow. The altitude was 10,808 feet, and the temperature 48° Fahr. As it was fine, and we were dry, we all felt better than at the base of the Garnier Peak. This was Nam's first introduction to snow, which his curiosity led him to taste, under the assurance

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from the others that it was sugar. The children of Annam, at least the Tonkinese, know only ice, which they call in their picture-language "stone-water."

At daybreak I had from my tent door a glorious sight. The whole valley of the Salwen lay stretched before me, a sea of cloud, with here and there a detached wreath of vapour floating feather-like above in the rays of the sun. The great dividing range betwixt the Mekong and the Salwen upheaved its grey mass with sharp-cut edges against the sky, conspicuous in which a single summit stood forth dominant. Garnier Peak was invisible from here, but we could distinguish a lesser rock in the chain, to which we had given the name of the Dent de Djewan. Little by little the mists rose like a curtain from below and blotted out the scene, which remained only as a vision of the dawn.

A stiff climb still separated us from the col, and occupied the morning. Once on the other side, the descent was as rapid and slippery as the seat of one's trousers could desire. We brought up at the village of Tamalou, Tamalo, Tamalopoula, or even Poulalo ; each variation having been used to designate to us the group of seven hamlets that here dotted the banks of the river Poula, affluent to the Salwen. Henceforward more protracted halts were imperative, owing to the necessity, now that we were on foot, of providing supplies for some days in advance, and extra followers to carry them.

We had first to re-establish communication with our mules ; for which purpose twelve men were despatched to bring up the remaining loads, with directions to send back the animals under escort to Tsekou with a few cases not absolutely indispensable, consigned to Father Dubernard. Great difficulty was experienced in enlisting additional porters. We had personally to beat up the huts and

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offer inducements. Even so, they would not engage to go beyond the Kiou-kiang.

While waiting here we mixed freely with the people, whose hospitable reception of us was in large measure owing to the excellent relations we had had with the king of Yetché. They were Loutses, mostly dressed in white togas with blue stripes, and epaulettes like the Lamasjens ; many wore a cap of brown felt, and all had large white bead necklaces. Each hamlet was merely a collection of two or three houses under a headman. A tax-gatherer, sent yearly by the Yetché mokoua, or by the mandarin of Ouïsi, takes a tsien per house in money or kind ; otherwise they are unburdened. A few trophies of the chase, skulls, and horns of the raguen and diasuna (*nemorrhædus* and *budorcas*) decorated the interiors, but we saw few tools. The women do what little tillage is necessary for bare sustenance. One of the chiefs on whom we called had a primitive still in which he manufactured a sort of spirit. A funnel hollowed out of a tree was placed over a cauldron of hot water upon the fire. A wattle in the former contained the maize, roasted and mixed with leaven. On top was fitted a vat of cold water constantly replenished, which hermetically sealed the funnel. A bowl received the condensed vapour, which fell into the centre by a bamboo tube. We tasted the liquor, and upon my word it was not bad.

By the 4th (October) we were ready again. We resumed our route with but vague instructions for our future guidance, but under better physical conditions, and passed the first night beneath the gigantic branches of a monster tree in shape like a dragon. The ponderous arms were fraught with menace, but we consoled ourselves by reflecting that as they had threatened thus for many years, they would probably last out our temporary stay.

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The two following days were employed in surmounting a crest of 10,725 feet. From here our new Loutse carriers sent back four stalwart wenches, who had helped their relatives with their loads up the ascent. I secured a garter,—“*honi soit*,”—and found its measurement to be 19 inches below the knee.

Then more up hill and down dale, damp underfoot but bright overhead. The thick bamboo brake which clothed the south-west sides of the hills did its utmost to retard our advance. Not content with striking us in the face, the canes lay low and tripped us when we stooped, and the mildest of our adversaries poured a few drops of water down our necks or relieved us of our head-gear. When we exchanged this vegetation, it was for barer heights, among which often gleamed little grey-blue lochs; a scenery not unlike some parts of the Pyrenees.

After a strenuous climb up a dry watercourse, we emerged upon the col. This pass over the mountains has a terrible reputation in snow. Natives hurry over it; song and gunshot are unheard under the great dread inspired by its solitude and many victims. And in truth, human skulls and shin-bones, a porringer, a fragment of a pipe, bore dreary testimony to the fate of unfortunate wayfarers overtaken by the cold. Our little band pressed on in silence among the sombre scattered rocks. It took several hours along the ridges before we ensconced ourselves for the night in the dry brushwood beneath a sheltering mound.

Whilst the men were preparing the bivouac, I could not resist the desire to climb a neighbouring eminence, on the brow of which I found myself the centre of a vast panorama of extraordinary grandeur.

The mist which had wrapped us during the last stage of our

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march was torn apart, and the horizon in the west was glowing clear. In the foreground below me the land fell in green terraces, dotted with dark stunted firs, towards the Kiou-kiang. The river itself could be divined, though not discerned. North-west, a lofty range, erect, stern, and snow-clad, formed Nature's fit, if forbidding, barrier to Thibet. Away to the west-south-west opened a gap, an ample valley fringed with lesser mountains, above which the zenith lay blue, flecked with white cloud. That was no sky of China;—imagination caught afar a visionary glimpse of India. Backward, whence we had come, the eye revisited the chain of separation now searched by the setting sun, which glistened on a recent whitening of the crests. It leaped the whole interjacent river basin, and scanned their well-known features, to where, appearing in a cleft, Garnier Peak stood up, sprinkled with fresh snow, and set like a miniature in perspective. It wheeled to the left, and rested in the north upon a lonely rounded summit, Pémachou, the legendary cradle of the Loutse race. That night we slept in considerable contentment with the ideas conjured up by our wide prospect, and recked little that the thermometer stood only two degrees above freezing.

8th (October).—Following the spurs we continued to descend, at first among bamboos, and later in rhododendrons. Beneath their spreading roots we passed more skeletons, the blood congealed upon the skulls, with derelict bowls and strainers. In the bottom of the valley we sighted the Kiou-kiang, running over a shingle bed, blue as the Aar. Casting about for a camping ground about 900 feet above the river, we came across two little thatched bamboo huts on piles. The thresholds stood agape, the hearths deserted. In the abandoned garden were remains of tobacco culture, pumpkins, beans, and plantains,—and beneath a

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rough shelter lay two dead bodies. Truly a day of mortality: we had left skeletons only to find corpses.

We quitted these undesirable companions for a spot half an hour lower down, where lodging was obtained in the wattled bamboo dwelling of the son of the chief of the district, which was called Toulong. Here, as at Tamalou, we encountered further delays in procuring supplies and carriers. At our first approach the alarmed inhabitants began to hide their food in the mountains. Luckily, they were of a gentle, timid race, Kioutses, so named from the Kiou-kiang, though they styled themselves Tourong or Toulong, and the river Toulong-remai. In speech and appearance they differed but little from the Loutses, save that in frame they were rather more robust. The men mostly had a twig or thorn in the ear as ornament; the women sometimes a large silver ear-ring. The latter also were tattooed in green round the mouth. Formerly they used to be unmolested, but the Loutses made war on them, and it was then that they lived for precaution in holes under the trees. By degrees, when they found we gave them presents of blue atoutzi yarn (here held in high estimation) and cotton, and paid well, they became tamer; and again we traced our indebtedness to an emissary of the Yetché mokoua. The collector of revenue (called in Lissou, *nerba*) had received instructions from his superior in our favour, and in him we found a valuable auxiliary. As if as a further aid there also arrived at this period from Tamalou a Chinese itinerant trader, who had been instrumental in helping us when there. These two together used all their influence on our behalf. Still, our patience was never more tried: the natives could not be brought to understand the need of diligence. The longer our large troop remained stationary the more it exhausted the available supplies on the spot. The

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nerba at last issued a *mouké* (in Loutse, a *chiteun*), or requisition message, which was forwarded to a chief lower down. A second *mouké* was required for a new cord bridge by which to cross the Kiou-kiang. This was made with ease and dexterity. There was no lack of bamboos, and of them a twisted cable was fashioned by one man in one day. I could not but admire the address with which a broad river is thus spanned. With all our vaunted science we could not have beaten this in old Europe.

On the 13th (October) baggage was triced up, beds folded, tents struck, and our men began to emit sounds of rejoicing and departure from bamboo tubes. But where were the local carriers? Two reluctantly approached. And now appeared on the scene a new bore, in the person of a Chinese delegate from the mandarin at Ouïsi. This dignitary was a man of immense self-importance. Fresh palavers ensued. The Celestial, after a long-winded speech, would strut out of the apartment in seeming dudgeon. Negotiations were apparently broken off. The next minute he was back again in the doorway, and the whole farce was acted anew. Then the nerba, who had promised to set us a short distance on our way, suddenly developed intense official preoccupation; and the carriers refused to go beyond two stages instead of six. And, after all, we found the reason of this unexpected change of manner was that one of our men had got into a scrape with a village belle. An indemnity was graciously accepted by the latter, and we actually made a move as far as the river-side. Here we passed a night of vigil from the myriad mosquitoes. The mere lighting of a match caused a cloud to settle on our faces. At 2 a.m. I could stand it no longer, and patrolled the camp till dawn.

We were early astir, thankful to be off. The nerba was there, shouldering a mighty cross-bow, the Chinese sutler, and

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the fresh bearers, each with his wallet stocked with houang-niaï, a rock plant remedial in dysentery, of which we forthwith purchased a supply. Altogether the column numbered nearly three-score men. The river at this point was about 50 yards broad, with traces of a rise of 40 feet in flood. The transference of ourselves and chattels was accomplished without hitch; we even stopped to take a photograph in mid-air.



Bamboo Bridge over Torrent, Valley of the Kiou-kiang.

On the 15th (October) we kept down the right bank of the Kiou-kiang, and the vegetation had changed. We were now among large creepers bearing tempting red berries unfit to eat, shrubs with a rosy blossom not unlike the hortensia, only scented, fig-trees, plantains, elegant palms, and, in damp spots, clumps of fern 6 feet high. The river was low, and ran in a bed of

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granite, quartz, and micaschist. The natives who came in with food were well formed, though diminutive, almost naked, and wholly dirty, but withal of a not altogether unprepossessing type, having large eyes, small heads, hair less coarse than the Chinese and tending to brown, and their lower faces rendered more shapely from slightly prominent cheek-bones. Most of them carried a sword in a big sheath across the chest. Both men and women smoked a powdered green tobacco. We paid them partly in money, but chiefly in yarn.

The path by which we reached Deidoum on the 16th (October) was frightful. It was blocked by enormous rock masses, which had to be scaled, in some instances, by the help of notched tree trunks and trailers, but more frequently without, and having a 20-feet drop on the other side. Even the dogs had to be carried in places. Twice across a torrent by a liana bridge, holding to the hand of the man in front. But no sooner over than the clambering began again. The agility of the men was wonderful; no projection was too slight for a step, no indentation too shallow for a toe. Their bare feet gave them an advantage. And yet this route is not held to be a bad one by the natives. They admitted that there was one, going westward from Toulong into the mountains, that was dangerous. I wonder what it may be like. What we were traversing is the high road from China to India—the subject of so many English dreams, and the ideal line of Captain Blackstone. For the present, I rather imagine it has small chance of becoming an artery of commerce.

The denizens of Deidoum were very shy. At first they inspected us from afar, climbing the trees and peeping at us through the branches. The least suspicious movement on our

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part, and they vanished like a flight of sparrows. Little by little they gained confidence, but great persuasion was required to induce a few to act as carriers.

From a hill, on the 17th (October), we opened out the mountains formerly descried from the pass above the Kiou-kiang. Dense woods grew right up to the base of their crowning bastions, which were precipitous, though often flat-topped. They were named the Moutentekie rocks.

This valley of the Kiou-kiang, which we had now been threading for several days, with many more to follow, gave an impression of greater size than that of the Mekong, since, although narrow at the bottom, it was bounded by mountains of receding gradients, each with its own forest species, from palms below to ilex and rhododendrons above. It is one of the peculiarities of the scenery of the Upper Irawadi to find these clear rapid waters, like Swiss torrents, fretting their course through tropical vegetation. The region is little inhabited, and dwellings, whether single or in small groups, are invariably about the middle zone of altitude. Culture is evident only in occasional narrow strips of buckwheat, millet, or maize, and then merely in sufficient quantities to supply the most meagre necessity.

On the 18th (October) we reached the foot of a waterfall, sighted on the previous day, which fell from a height of 200 feet on to a smooth rock. With its flashing drops and iridescent spray amid the green foliage, it was like a diamond pendant in its casket. A side torrent had to be crossed, with no more bridge than a couple of slippery bamboos. Most of us crawled gingerly over unencumbered. But two of our men rashly ventured on it at once. I heard the rotten saplings crack, and was



"Down with a crash into the foaming Water."

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in time to see the sticks go down with a crash into the foaming water. However, we saved our half-drowned comrades farther down. What with swarms of virulent mosquitoes to harass our rest at night, and the severe toil undergone by day, we were having a fairly hard time of it. Luckily the weather at this stage was beautiful, just like spring in France. Our chief disquietude was on the score of food; and now we had to share some of our scanty stock with departing relays of Kioutse bearers, who by the terms of agreement should have victualled themselves.

I do not know but that we reached the acme of cumulative obstruction at this period. Up to the present we had overcome many a spell of choice obstacles. They had not exhausted the vagaries of nature. Indeed they might be looked upon rather as the occasional rockets of the entertainment, and this as the *feu d'artifices*. Jagged points, slippery surface, crumbling brinks, creepers that tripped, worm-eaten trunks up which to swarm, almost vertical ladders to climb, formed of wooden pickets driven into the face of overhanging bluffs, often hauled by sheer strength of a couple of men and liana drag-ropes over boulders. We struggled on because we had to, and sat down abruptly on the other side, to marvel how the deuce we got there. Let any who want good training for calf and biceps come here. A mile or two in a day was sometimes all we could do, and at this rate we began to despair of seeing India in 1896.

Camped on the 19th (October) beside a curious rock. It was of granite, and 20 feet high. Outside it looked very ordinary, but, on descending to its base, an aperture was discovered leading into a circular chamber, pierced with two windows like eyes. One could imagine oneself inside a colossal head

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like that of "Freedom lighting the World" in New York. Evidently this cavity had been caused by the river at high water, an inverse phenomenon to that of the "Marmites des Géants" in Switzerland.

Wild as our life was, we had grown accustomed to it, and were a united band in our daily adventures. At daybreak our men rose in their tchaupas like loose dressing-gowns, stretched themselves, had a wash, and lit the fire; during all which operations the Christians repeated their prayers, which sometimes lasted well on into the day's march. Tea was brewed, and some maize or millet partaken of. The troop was divided into several messes. In No. 1 was Anio, chief of the porters and commissary-general, a man of rare thews, indefatigable energy, and self-sacrifice. Then there were Pétalon, the wag of the party, who kept everyone alive with his jests and grimaces; and Loureti, his younger brother, too slight for this sort of journey. With them were also José the faithful, a cross between Mosso and Thibetan, a grand fellow and my especial bodyguard, who carried my camera and gun, and looked after me like a mother; and Goumbo ("divine grace"), the Adonis of the band, quite a painter's model with his large soft black eyes, but very reserved. Mess No. 2 contained three mighty brothers, plucky but generally keeping aloof from the rest, though one was much attached to Roux; and another interesting type of a Thibetan, a Herculean monster, whose matted hair, flat nose, and open mouth gave him quite the ferocious aspect of the conventional ogre ready to crunch raw fowls. All the above were Christians. Among the pagans, too, we had good stuff, men displaying equal attachment to us. There was Oumbo, son-in-law of the Tsedjrong bessé, who undertook voluntarily the hardest tasks with unimpaired

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vivacity, notwithstanding his ill looks, corrugated brow, and projecting jaw. And we owed as much to Seran-Seli ("eternal life") as to anyone in the company—the man to unravel a knot if ever there was one, who spoke Lissou and even a little Kioutse, and having been in the Kiou-kiang valley before in search of gold, had experience of the inhabitants. His description of the gold-washing (on a left-bank tributary of the Kiou-kiang) showed it to be but rough. The large stones were turned over and the silt sifted for grains of the precious metal. Occasionally a nugget as large as a haricot bean was found. The gravel and slush were then strained on wooden shutters and the gold remained. A man may collect sometimes a taël weight ($1\frac{1}{2}$ oz. adp.) in a week. Both here and on the Loutse-kiang the search is unrestricted; on the Mekong it is taxed.

After chota pipes were lighted. The manufacture of these bamboo pipes was a great distraction during our enforced delays, and we had become adepts in the art. Then tents were struck, the modest kitchen range stowed with excessive caution by old Nam, and loads assumed. Anio apportioned the labour, and we never heard a complaint; on the contrary, the sick or tired were often relieved by their comrades. Once under way, each man went his own gait. The van on reaching a plateau got a welcome rest while awaiting the rearguard. At the close of the day, after the Thibetans had lent a voluntary hand to our Annamites in strewing our leaf mattresses, came the best hour in the twenty-four: we sat round the fires, wrote up our log, drank tea, smoked and chatted with the men. Most of them spoke or understood a little Chinese, and by aid of signs or a pat on the back and a pinch of tobacco we established an excellent good-fellowship.

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In the course of these chats we were puzzled by accounts given by the Kioutses. According to them, we were to find within a few days a large river, the Neydu (Lissou, "big water"), to follow it up seven marches, cross a high mountain, and then arrive at a wide plain which was called Apon, where the villages were frequent, the houses circular, and the people



Midday Halt.

dressed in trousers and vests like ourselves, only with black teeth and wearing turbans. To us poor weary rock-climbers the word plain spelt paradise, and Apon became the constant theme of speculation and debate.

As far as our investigations upon the fauna of the Kiou-kiang went, the results were largely negative. We heard that

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tigers, though sometimes seen, are rare; neither wolves nor deer are met with; and the wild ox (by which was probably meant the *budorcas*) is tawny or black. The wild ass (*nemorrhædus*), black and white roebuck, dark-haired goats with horns like the markhor of Kashmir, were not mentioned. There are black bears, and foxes of three colours of the Thibetan species; and monkeys and large bats are numerous in the forests.

The following is the translation given me by Joseph of the names of the several more important rivers we had seen:—

<i>Lang-</i>	<i>-tsong</i>	<i>-kiang</i>
That makes waves	swift	river
<i>Lou-</i>	<i>-kiang</i>	
Wrath	river	
<i>Kiou-</i>	<i>-kiang</i>	
That zigzags	river	
<i>Tou-rong</i> or <i>Tou-long</i>		
That has stones.		

I tried to make a careful study of the Kioutse type of physiognomy. The line from the lacrymal duct to the nostril, almost straight in many people, is with them very sloping; they have thick lips, short chins, and triangular face. The space between the eyes is wide, and general cast of countenance not displeasing. The visage seems small, from the pent-house thatch of hair overhanging it. Chests big, and thighs largely developed from hill-climbing.

A long march on the 23rd (October) brought us to the scattered hill village of Tukiu-mu. On the way, near the river, I had noticed a species of date and excellent figs; I also picked up some large brown seeds in a pod similar to what I

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had seen in Madagascar. Just outside the village we passed a tomb stuck with stones and bamboo tubes, which had probably originally held food for the deceased. A post on which was the skull of an ox, and five perches surmounted by wooden birds roughly carved to represent hovering, were sufficient to scare most evil spirits. It was some time since we had met with these attentions to the dead.

While at Tukiu-mu, where we all shared one roof, the rains once more descended, and we might have supposed ourselves shut up in a house-boat. The people of the district were so destitute, of food as well as raiment, that we again found ourselves checked for three days, and in straits for provisions. The annoyance was that we had no hold on the natives: they had only to disperse into the recesses of the hills or to hide their grain to have us at their mercy. Even supposing we could have laid violent hands on their property, we should have alienated the very levies on whom we relied to carry it. Having an aversion to rain, they would only come in singly or by couples under cover of large shells made of tree bark, bringing a few tongs (Thibetan measure) of rice, the husking of which in one little wooden mortar occupied another day in this heaven-forsaken place. We paid for everything (which was little)—in trinkets, prints, and yarn. But our most seductive wares failed to extort any but the scantiest pittance of tobacco. It was amusing to witness poor Nam's dejection, and the care with which he dried at the fire a single leaf he had somewhere acquired, fondling it like an old savant over the rarest object in his collection.

It was the same story. The inhabitants raised just sufficient for bare existence, and having no money had no desires. I

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conceded their grounds, but resented the consequence. Necessity has no law: here, as at home, hunger is hunger. Our plight proclaimed the socialist theory to us more clearly than the loudest speech, even to the excuse of robbery with want for cause. The Haves defend themselves from the Have Nots; and justly. But when the former condemn the latter without remission in the name of high-sounding principles, they have not put themselves in the others' place. We were now in the position of the indigent; and, reflecting, became indulgent.

As the result of a council held in the preceding evening with Anio and Joseph, we set forward again on the 27th (October). From Tukiu-mu to the big river was reported four days' march. We had food for two. Our design was to go on short rations, and to send Seran-Seli with two men on ahead to try and procure supplies to meet us. In the midst of our perplexities we had the satisfaction to detect no sign of discontent among our followers proper. They simply asked if we were going much farther, with a view to avoiding this route on their way back to Tsekou; to which I gladly replied by a promise to send them home by Ava in Burmah and Tali, and they were satisfied.

Our departure was slow. At the last moment most of the local carriers vanished. It was no time for compliments, so we promptly collared some Kioutses who were innocently looking on, and started with nine pressed hands. After a few hours' marching in a steady downpour through dripping woods, we came to the confluence of the Kiou-kiang with a stream on the right bank, the Du-tchu-mu. This river rolled a strong head of water tumultuously over shingle bars, and its black tide was furrowed with ribands of foam for a considerable distance before mingling with the other. Here we found Seran-Seli, unable to pro-

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ceeded. Hardly above the swirl three ratans swung loose from a post on either bank, but not tautened for a rope bridge. The river was in flood. The pebbles on the margin were covered with big black wood-bugs, seeking safety from the swollen current; we crushed them as we sprang from stone to stone, and they emitted a fetid odour. But the Kioutes stooped to gather and devour them. While crunching these tasty bon-bons, they further encouraged us by explaining that the Du-tchu-mu was usually crossed by a tiny raft, which, under existing conditions, was out of the question.

"What is to be done, then?" we asked. "When the waters are out," replied they, "we stay at home."

A Thibetan, one of the three brothers, volunteered to make the attempt by the slack-rope, for which service of danger we offered a reward. The night now falling, the venture was deferred till daylight, and we camped where we were.

Not long after, I noticed the men retiring higher into the woods to sleep. Looking out of the tent, I perceived the water rising rapidly round us: it was high time to beat a retreat, if we did not wish to wake up in the river. In the darkness and confusion of rushing streams, it was no easy matter to clutch our belongings and make a hasty escape on all-fours up the channelled bank. The camp was in dismay. We found Nam among his pots, swearing and wailing by turns. "Master Doctor! Master Sire! Annamite no way make dinner,—no China way!" (by "China" he included all that was neither Annamite nor French). "Don't cry, Nam, we'll do without;" we consoled him like a child. Finally, we gained the shelter of a big rock, and there, with the help of the men's tent and a fire, while the rain kept up a deluge without, we passed the remainder of the night huddled together

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as best we could. I counted twenty-nine beings within the limits of that tent—Frenchmen, Chinese, Annamites, Thibetans, Lissous, and Kioutses. The men maintained an excellent demeanour, but beneath our jokes we all had the serious reflection that if the waters still increased, or we failed to cross, the alternative would



Beside the Du-tchu-mu.

be that of abiding in a district that could barely provide us with two days' sustenance.

But with dawn on the 28th (October) came unexpected relief. As if by enchantment the inundation had receded, the shingle bank on which we had been marooned was free, the Du-tchu-mu was only a sullen torrent growling between its almost normal banks ; the very bugs were gone.

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I imagine this phenomenon of flood overnight followed by abatement in the morning, which we more than once experienced, is to be attributed to diurnal melting of the snows at the source.

Our first care was to repair the connection with the far side; and a Kioutse having contrived to cross, our men were not long in following. The ratan was old and frayed, but by putting a clod of turf upon the traveller the friction was lessened, and all passed in safety, if not in comfort, over the minished stream. The heavier of the party, myself included, had to present our backs to the current, and did not escape a ducking. After the troubles of the preceding night, fortune seemed determined to make amends, and, when we called halt at the close of the day at "Safety Camp," further disclosed to us a little cache of four good-sized baskets of maize and rice. It was curious to note the respect of the Kioutses for personal property: this harvest of provision for winter was left in perfect trust out in the country, far from dwellings, and merely covered with leaves. From it we were enabled to purchase a small replenishment of our stock.

The 29th (October) was therefore a day of restored hilarity. Not that much improvement of the route was observable; the customary acrobatic performance had to be got through, with for one of the Thibetans an incidental fall from a 20-feet rock; but we managed to dry everything by the margin of the Kiou-kiang, which here was a broad sheet of water, swift but noiseless, and wonderfully clear.

The men enjoyed themselves "after hours" by stone-throwing, in which the Thibetans excel, and by a swimming exhibition by Pétalon the buffoon and Fa the younger. The Kioutses, as

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undressed as usual, squatted on a rock apart, beneath a great tree, whose branches swept the stream and up-bore a hanging garden of ferns, orchids, and woodbine clinging by long lianas to the forest behind. This forest assumed more and more the character of warm regions; the bamboos were enormous, tree-ferns 30 feet high, and above the pale green stars with which the plantains studded the hills palms with their metallic sheen rose rigid and erect. But from the dense mass of humid vegetation issued an army of leeches; they dropped from the bushes, they crawled upon the ground, and fastened on the calves of the men. Even we in our boots were not spared. Although their puncture was not painful, it often caused a wound to spread round the place.

On the 30th (October) we reached at nightfall another confluence of two torrents. One was the Dublu, the other was the Neydu or Telo—the great river of which we had heard so much, its silent tide and tranquil depth! “*Voces non clamant,*” as the poetic Joseph rendered it.

It was a wretched disappointment. Instead of level fields, hills and impenetrable forest as before; instead of houses, crags as savage as any in the valley of the Kiou-kiang. We did not feel in the least moved to join in the songs of our men. Nevertheless, the lengthy stage of the day had gained us ground, and here the proverb “Time is money” was fast becoming “Time is life.”

We had attained one of the principal feeders of the Irawadi. Like the Kiou-kiang, it did not come from far, but it brought a considerable body of water, and it is the great number of these large tributaries that accounts for a river of the size of the Irawadi in Burmah.

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We were shaken out of sleep on the 31st (October) by an appalling crash. One of our men thinking to make a speedy and unusually safe bridge, had felled an immense tree on the opposite side, which came near to crushing the whole encampment in its fall. Much more effectual was the work of the Kioutses: planting bamboos two by two X-wise in the river-bed, and hanging on to the farthest by their toes, in a very short time they had a line of trestles across and a light causeway laid. The skill of these savages was marvellous; I question if civilised engineers with the same lack of implements would in two hours have thrown a bridge over a torrent at least 32 yards wide. The Dublu crossed, we proceeded up the left bank of the big river.

Thanks to the exertions of our forerunner Seran-Seli, the inhabitants of the vicinity here met us with some food, for which barter was the only form of purchase. Anio proved himself irresistible in the rôle of pedlar, would tap the vendors on the shoulder, make them laugh, and descant on the beauty of the coveted trinkets. It was the women who showed the greatest avariciousness. They seemed more independent than in most parts of Thibet, and on an equal footing with their husbands. Most of them were small and ugly, though the tattooing elsewhere prevalent was represented only by a blue mark on the lower lip. We took advantage of the general satisfaction to beg a fill for our pipes. I could not help laughing at being reduced to mendicancy from savages, with a fair prospect of sinking to yet lower straits.

On the 1st (November) the offer of my spoon secured us the services of a competent guide, under whose direction we at once transferred ourselves to the other (right) side of the river

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on rudely improvised bamboo rafts; the water was quiet, deep, and of a grey-blue colour. Our passage disturbed a number of otters on the brink, who dived before we could get a shot at them. For the two succeeding days we climbed a steep and rugged track, catching sight through openings in the woods of an amphitheatre of snow-covered mountains. In the west a high white range running north-east and south-west was identified by us as the alps of Dzayul, on the other side of which lies the basin of the Upper Brahmaputra in Thibet. From our camp at the close of 3rd November nothing could be seen on all sides but mountains and valleys.

The 4th (November) furnished us with novelty in the manner of routes in this part of the world. Most of our old feats were duly called into play, but with the addition of being exercised in the actual torrent. We had camped overnight on its edge, and at starting crossed and recrossed it half a dozen times : ultimately we settled down to ascend it without divergence. It was the simplest plan. All the same, it was as painful as anything we had done. Our own men with their loads struggled bravely against the current, which was sufficiently heavy to require a strong stake to steady each step. The naked natives found the waterway admirably suited to their agility. Being barefooted, both had some advantage over us in our boots among the rolling stones. Stumbling, slipping, plunging, our ears ceaselessly deafened by the relentless roar of the descending water, we staggered blindly forward all day with barked shins and broken knees in the urgency to make headway. For we had only one day's supplies left. It was emphatically a case of gaining our bread by the sweat of our brow. In the evening the Kioutses caught some welcome

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fish by an ingenious artifice. A small backwater in which quantities of spindrift had collected was barred, the pith of a plant was picked like oakum and cast into the pool, and the fish entangled in the mixture of foam and fibre were taken by hand and net. To their own menu the Kioutses added a mess of boiled fern leaves. Our faithful fellows bore their privations most unselfishly; they had already been on half rations—two porringers of rice swollen with water per man; but they were only concerned to lessen my anxiety, and sustained the greatest appearance of cheerfulness. To fill up the measure of this distressing day, we had to deplore the death of “Diamai.” For some time the poor beast had followed with difficulty, famished for lack of the meat which we could no longer procure. After vain efforts to contend against the stream, which kept sweeping his lean carcass back, he gave up, and lay down to die under a bush. I reproached myself for having taken him away from his pastures and snow. He was the second dog of the breed which I had lost; they seem unable to exist far from the icy cold and rocks of the uplands of Thibet.

5th (November).—We had to get somewhere. We had nothing left to put between our teeth. So into the torrent we stiffly lowered ourselves again and bent to the collar. Rain from above was soon added to the water below, and we enjoyed a double bath. The stream was wider and less swift than before, more like a water alley through the midst of the deep forest, where unbroken gloom lent solemnity to the scene. After many grievous hours of toil, it was with feelings of reviving cheer that we issued from this oppressive confinement to raft over a broad reach, and committed ourselves to firmer ground. And when at last we extricated ourselves from the tangled woods,

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we hailed with joy once more the sight of hill cultivation and the straggling houses of the hamlet of Duma, in one of which we were not slow to seek shelter, and to disembarass ourselves of the wet garments and the leeches that adhered to our limbs.

The Kioutses at Duma seemed a finer set of men than those hitherto met. In proportion as we advanced west we found them more civilised. On the borders of the Telo, instead of loin cloths they wore drawers; and here one saw cotton stuffs and large straw hats with a small cone of the Burmese shape. The women also were no longer tattooed. The same indifference to cleanliness and tillage marked their dwellings and their fields. Nor did they evince any apprehension of discord arising from intercourse with men of other villages. Their extreme

isolation probably makes for peace. They allowed themselves to be freely interrogated, and gave us copious if indefinite information as to our route. They said that about Apon,¹—of which



A Kioutse of Duma.

¹ We discovered that Apon simply signified in Lissou, Païs (Thaïs). When, therefore, they spoke of Apon they meant "the region inhabited by the Thaïs."

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we had heard so many incoherent stories,—we should come to a plain called Moam, which we must traverse, and that we should find rice-fields and elephants. Our Thibetans on learning this testified much interest, imitating a trumpet with their arms: they had heard of such beasts in their legends, but had never seen one.

An old man I conversed with declared the Kioutses, Loutses, Lissous, and Chinese to be sprung from the same stock. This branch of the Kioutses at Duma styled themselves Reouans. They had been driven westward successively from the Salwen and the Telo by the Lissous of Kioui. Even now it was a Lissou delegate from the chief of Kioui who collected the impost, one tsien per family; thence it went to the chief of Ditchi, who in his turn passed it on to the prefect of Likiang. Filtering through so many hands, I wonder how much of it ever reaches the latter. To my inquiry why they paid, they replied that though some families evaded the tax they feared the power of the Lissous. It was indicative of the reputation for ferocity enjoyed by the riparian Lissous, that, already established in the east and south-east, it should also be recognised so far west of the Salwen as this.

Negotiations for food and bearers were carried on more easily here. Money by weight and the rupee were known; and with a wholesome addition to our diet of smoked fish, we were able to proceed on the 7th (November) after a halt of a single day. We forded a broad and shallow river, the Reunnam; and it was hard to believe ourselves at the base of the lofty mountain chains of Thibet; the long file of porters amid the tropical plants heightened the impression that we must be in equatorial Africa. The appearance of our column as it wound snake-like to the river's margin was original. The Kioutses led the way,



The Reunmann.

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cross-bow or wooden lance in hand, with here and there a big straw hat. Fine men they were, tall and with expressive faces, ingenious, but industrious only to the bare limit of their need. Leading a life of perfect freedom, they preferred not to engage in traffic with other folk, which might in the end lead to a loss of individuality and liberty. They reminded me of the fable of the wolf and the dog. The Kioutses have chosen the part of the wolf, and are very likely right.

A diversified woodland march ended for the day in a real village. Five houses, each 90 feet long, placed parallel to one another, testified with the barking of dogs and grunting of pigs to an approach to comparative civilisation. We celebrated the event in a cup of rice wine with an old greybeard in silver bangles, and repressed the grimace which the insipid stuff evoked. The two ensuing days afforded little of incident. The marching, although somewhat easier, tired the men from its monotony, and we had to invigorate them with the incentive of Moam and all its prospective joys.

On the 10th (November), after being disturbed early by the cries of invisible troops of monkeys that infested the woods, we performed a long and toilsome stage, a great part of which was in a watercourse. But at its close we debouched upon a fine sandy beach, ideal camping ground, by the shores of a considerable river, the Nam Tsam. The stream was 40 yards in width, and expanded into a small lake at the foot of a sounding cataract. Here, deluded by a curious appearance on the surface of the water, we one and all delivered ourselves to fishing. But as the fish, if fish they were, remained indifferent to baited lines, stone-throwing, or Sao's ineffectual gun, we had to fall back on our usual supper of rice and water.

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The next day, the 11th (November), we pursued a rough track up the left bank of the Nam Tsam, again at risk of neck and limb, and towards evening arrived at a large fish-dam. Tree trunks and bamboos were lashed together two and two between the rocks in mid-stream, and from this barrier depended a valance of trellis embedded in pebble heaps in the water. From the centre of the weir a channel staked by bamboos extended down stream, and at its extremity the apparatus for catching the fish was set at night. We profited by the bridge thus offered to cross the river, but it took us half an hour to effect a passage sitting astride the narrow causeway and working ourselves along by our hands. The owners of the dam, whom we found under a leafy hut on the other side, exhibited new traits; their features small, almost effeminate, eyes prominent, forehead convex, mouth projecting, and complexion olive-coloured. They wore a white turban which half hid their hair-knot. Although they called themselves Kioutses, they showed more affinity to the new races we were nearing in the Moam district. The material of their vesture, no less than their red and blue leather wallets and copper pipes, undoubtedly came from there. Their huts, too, were of a novel shape, like cradles set on end.

These fishermen gave us a good reception and some directions. They reckoned the number of days upon their hands; four by an open hand with thumb shut to palm, five by joining the finger tips. We all excited their astonishment; but Sao puzzled them most, because his mode of coiffure resembled their own.

Signs were not lacking now of an approach to a hotter climate. A tiger paid us a nocturnal visit; at another time our march was harassed by most malevolent wasps; and one morning we were



Slippery Footing. Brink of the Nam Tsam.

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interested by a long flight of white butterflies in line, which dipped and hovered with marshalled regularity on their course. I thought of the Burmese belief that they are the souls of human beings dead or asleep. If the latter, they would be able to take back with them a strange dream,—of a forsaken country ; of three Europeans toiling painfully with many falls along a torrent bed enclosed in dim forests ; at the head of a small band of men clad in grey blouses to their knees, with loads on their backs, yet still from time to time breaking into song : followed by a set of half-naked savages adorned with large black wigs, some with foreheads pressed hard against the strap that sustained the burden on their necks, and others moving free. Or would the vision be to them but that of purgatory,—of hapless ones condemned to unrespected struggles through misery to paradise afar ?

Mountain rice culture began to be visible in clearings of the woods, and felled trees laid horizontally here and there assisted the path ; elsewhere, trunks left standing served as miradors above small granaries like bee-hives upon posts. As we drew near to habitations averting emblems reappeared, and we noted a fenced elliptical tomb on which were deposited an earthen vessel, a tube, and some calcined bones. The last suggested the possibility of cremation among the Kioutses of this district. A sword in its sheath hung upon a post, but the weapon was of wood. Examining the representation of articles of which the deceased might have need, I called to mind the graves of South America and ancient Egypt, where are found figures of slaves intended for the service of the departed. These taphic observances could not but attest the resemblance, sundered by many thousands of miles and years, between those of the people of the Pharaohs, the Redskins in America, and these savages of the Irawadi.

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Two days which we passed at Pandam sufficed to partially revictual the column, but our stock of salt was exhausted, and we could by no means replenish it nor find an efficient substitute in the pepper or grated ginger of the natives. The circumstance led to a discussion among us as to which was the greater privation, want of salt or tobacco ; and on a division I was in the minority



Idiot Woman.

in favour of the latter. Throughout our stay in this village we were on the best of terms with the inhabitants, self-styled Lanouans, but hardly differing from other Kioutse branches. As ill luck would have it, a man was absent who might have served us as an interpreter in the Moam plain, where they declared no one comprehended Kioutse.

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From Pandam, which we left on the 15th (November), to Mélekeu the route was good, on easy gradients, and well cleared of brushwood. Except for a slight personal touch of fever, we all felt light-heeled by contrast with our late crawl. Mélekeu was composed of pile houses sometimes 130 feet long, not unlike the Moï dwellings in Annam. The families were separated by bamboo partitions, with a passage of communication. Each compartment was arranged alike—a square hearthstone in the centre, round which the inmates slept ; above it a platform supporting a loft, and a sloping roof about 16 feet high, which projected several feet in front over a little terrace, where stood the pestle for husking rice. Round the piles ran a trellis to keep in the pigs. Mélekeu was set in an attractive semicircle of gently retiring hills partly covered with yellow rice clearings : a few large trees, survivors of the primeval forest, dotted the slopes ; in the distance the level sunshine smote the line of woods like the head of a repulsed column in every variety of light and shade.

We already had a foretaste of the Moamites (to coin a word) in two copper-coloured men who had joined our party. There was no doubt about their personality ; their cotton garments and turban over the hair-knot bespoke them Thaïs. They had come from seeking lead in the mountains, and had with them some Kioutses to carry it.

So the plain of Moam is really peopled by the Thaïs, members of that numerous race which stretches from the Canton River to Assam, while it extends south to the Malay Peninsula. An intelligent, easy-going folk, possessing artistic tastes and a mature caligraphy which in its diffusion has infected the greater part of Indo-China. The two above-mentioned representatives observing us making notes, took a piece of charcoal to show that they also knew how to write.

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Among our informants was one who said that from Moam it was a sixteen days' journey to Atsara (the Thibetan name for Assam), where there was a big river, and on it boats with houses that went like the wind. Clearly there was a road from Moam into Assam, and we already saw ourselves navigating the Brahmaputra.

The allurement of all the delights awaiting us in Moam led us to set out from Mélekeu on the 16th (November), notwithstanding that Briffaud was lame from a bamboo splinter. Our gaping boots, scarce held together by many a strip of hide, no longer saved our feet. In our impatience for a horizon we made the best of our hobbling speed towards the summit of a col, in view since the preceding night. It was but 5,200 feet ; but every step was a slip, each leaf a shower-bath, while overhead the monkeys greeted our efforts with ceaseless mockery. There before us it lay at length ; still far away, but revealed. A wide expanse of apparent inundation enveloping lagoons of land ; but what to our eyes seemed swamps were no doubt paddy-fields. Upon its farther verge rose folded hills to the ridge of the frontier chain of Assam. What mattered it to us then that fresh snow powdered the distant crests ? The plain for which we longed lay between us and them.

We pushed on, leaving the main body of our carriers to follow. At four o'clock in the afternoon we discerned the blue smoke of a habitation, and presently became aware of a noisy gathering under a shed. Chattering, laughing, and gesticulating all at once, a band of almost naked men, women, and children were pressing round a large cauldron. We had lighted upon a Kioutse harvest fête in propitiation of the mountain deity, to whose satisfaction, and their own, copious libation of rice wine was being made. Everyone was merry, most were tipsy. Old men babbled, women playfully pushed each other, a child harangued an aged individual, most

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probably its great-grandmother; and on all sides rose a babel of songs and jovial mirth. Yet withal there was nothing brutal in this extraordinary bacchanalian orgy ; perfect cordiality reigned throughout.

Imagine the effect on this crew of the sudden apparition of eight figures, strange of feature and in divers garbs, armed and unannounced, dropping from the mountain into their very midst.

Their moment of stupefaction was a short one. Hospitality was evidently in the ascendant. Drink was offered to us, and we were given to understand by signs that they would accompany us to the village. So, under this novel escort, none too steady on their legs, surrounded by a medley of lances, swords, and bamboos, and a hubbub of strange cries, we made a triumphal entry into Dérou.

Here we were able to buy rice, fowls, and potatoes ; and after passing a somewhat broken night owing to Sao's setting fire to the bamboo screen, and to minor disturbing visitants, we resumed our descent on the 17th (November) at a more deliberate pace. Our next camping ground happened to be on the borders of a tobacco field. The morning light shone upon bare stalks: our men were the locusts. Finding this godsend, they had thanked Providence and fallen to.

We discoursed with the two men of Moam, previously mentioned, in tags of all the dialects at our command, and learned from them that the country known to the Kioutses by the name of Moam was called Khamti, with a capital named Khamtidon, and they proposed to precede us and announce our coming to the king.

We conjectured that these two Thaïs were deputies of the chief of Khamti, and that the supremacy of the latter embraced the Kioutses of this district, since they were at free quarters in the villages which they entered, and requisitioned carriers with the tone of authority. The lead which they were convoying was in small pigs like those sold at Luang-Prabang, and similar, both

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in shape and size, to what are still found in the mines of Laurium, the product of bygone Greek industry;—another strange instance of conformity between an ancient people of advanced civilisation and a savage one of to-day.

On the 18th (November) we stepped out freely along a shady, sloping path, in which the hoof marks of buffalo became increasingly frequent, and just as day was declining emerged all at once upon a rolling sward of close-cropped grass. With cries of astonishment, “Allais! Allais!” our men broke away, and raced each other with their loads towards the camping ground.

The cause of their boyish glee,—what they imprisoned in the deep and narrow gorges of the Kiou-kiang had never in their lives beheld,—what we ourselves had well-nigh forgotten for five months in those pent-up valleys,—was—the level plain!



Passing the Torrent of the Kiou-kiang.

CHAPTER VIII

KHAMTI TO INDIA

Enter the Plain of Khamti—Blackmailing at Tsaukan—Passage of the Nam-Kiou—Khamti (Padao)—Interviews with the King's Son ; with the King—English Influence—Account of the Khamti Thaïs—Pagodas—Panlian—Carrier Difficulties—Departure—Again in the Mountains—Vexatious Delays—Desertion of Porters—Critical Position—Fever—Three Columns—Roux falls in Rear—Pass to India—Death of an old Christian—Short Commons—Two more Men left behind—We abandon Tent and Baggage—Hunger—First Village—Mishmis—Revictualling the Stragglers—Singphos—The Way Lost—Plain of Assam—Bishi ; Good Treatment—Details concerning Village—Roux Rejoins—Easy Progress—Elephants—Reception by a Singpho Chief—The Brahmaputra—Sadiya—Cordial Welcome from the English Agent—Position at Sadiya ; Native Population—Tea Plantations—Method of Work—*En route* for Calcutta—Descent of the Brahmaputra—Historical Reflections on India ; Dupleix.

AFTER a bath in the river we stretched ourselves on the grass in the open, and watched a magnificent sunset. It was good thus to lie beneath the wide arc of heaven after being so long restricted in our surroundings.

Whilst preparing for our evening meal, our ears were saluted in the distance by a prolonged note, which, as it rose and fell in its approach, was presently distinguished as proceeding from a melancholy gong. A small band of about fourteen Pains then came in sight, winding in Indian file towards our camp. At their head we recognised one of the deputies who had given us their company on the road. When opposite to us they stopped, gravely saluted in a quasi-military fashion, pronounced

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the word "Salaam," and squatted. Two of them carried muzzle-loaders.

As we had no clue to their intentions, it gave us satisfaction to observe the quiet promptness with which our men carried out our instructions, given previous to entering the Paï country. The packs were withdrawn, the tent closed, and our people grouped in rear. A quaint scene ensued. We three seated at a table behind a guttering candle, facing this solemn deputation, proceeded to conduct a colloquy, of which, I imagine, not a sixth part reached either party in intelligible form,—from us to Joseph, Joseph to Seran-Seli, Seran-Seli to a Kioutse with a few words of Lissou, the latter to a Paï with fewer of Kioutse, and from this last to the expectant group. Out of this chain of evidence we gathered that the chief of Khamti had received a letter from the south with threats of war. Had we any connection with this missive? The Paï, who constituted himself spokesman, addressed his remarks in so loud a tone that Joseph took exception, and concluded that he lied. In return, we assured them we were peaceably inclined, and anxious to expound our views at greater length to their great chiefs; after which they took their departure as they had come, to the lessening vibrations of the gong.

Next day (19th November) we had not gone far before we perceived a thatched village, from which issued a number of inhabitants, who motioned us to stop. They had with them a bamboo tube enclosing two rolls of paper, one of which contained some writing in Paï or Burmese characters, signed in English as far as could be deciphered: "*Emile . . . Art . . .*," with a seal below it, "*Seal of the Court of the Deput . . . Bha . . .*"; the rest was effaced. This letter found here was curious, but it did not concern us, as we endeavoured to convey to the people. A few

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steps farther, and again we were stopped. Through the same medium as before, some notables intimated that we must make a present to the village. This procedure did not commend itself to us as at all a desirable precedent to establish. On the other hand, to use force when we did not know our way, had a river to cross, and with the ever-recurring difficulty of food, to say nothing of the presence in our column of local porters on whom we could not rely, seemed an unwise alternative. Their tone now became more menacing; it was a custom, they said, that other Europeans, none of whom had come from the East, had observed, and unless we conformed to it we could not pass. In this dilemma we offered them five rupees. They indignantly refused, and laid our modest ransom at a hundred rupees. This was too much; we made a signal to our men to fall in, and began to get out our guns, with obvious other intent than as gifts. Upon this they held a further conference with some pretended chief in the village, and ended by accepting ten rupees. Such was our first contact with the folk of Moam—a set of rapacious blackmailers, to whom nothing but prudential considerations for the success of our journey allowed us to yield.

The females in the crowd here were so far feminine, and unlike those of the Kioutses, as to recall to us that heaven created woman for a companion to man. They were tall, wearing a dark blue skirt, a light open jacket of the same colour, and a white girdle. Their hair was in a knot, and drawn into a glossy black coil, on the left side of which several fastened coquettish glass spangles that glittered in the sun. Most had rings in their ears, sometimes of amber. I saw a child here, playing with a wooden top, just as at home.

We passed through the village, Tsaukan, and at once found

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ourselves on the borders of the river. This was the Nam-Kiou, or Meli-remai of the Kioutses, the western branch of the Irawadi. It was about 160 yards in width and 12 feet deep; water clear and sluggish. We crossed without delay in five or six pirogues, and saw grounds for the arrogance of the natives in the ease with which they could have prevented our passage. A series of streams succeeded at close intervals; the region seemed a veritable



On the Nam-Kiou.

cullender for Indo-China. Some we forded, others we passed in dug-outs. Their gliding currents mingled or diverged without visible cause in this flat delta-like country; in marked contrast to the riotous torrents we had so lately left. They cannot come from far, as the chain of the Dzayul Mountains running south-west bounds them to the north of the plain of Moam.

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As far as the eye could reach stretched rice-fields, yellow as the plains of Lombardy. A splendid territory, fertile in soil and abundant in water, where tropical and temperate culture flourish side by side, and the inhabitants are protected on three fronts by mountains. That they were fairly opulent was to be assumed from the silver bracelets of the children and the small Indian coins used as buttons. Indeed, nothing would appear to be lacking to the happiness of the people of Khamti. Only beware, you light-hearted folk, you are perilously close to the British leopard. His appetite is enormous: sooner or later, be it from the mountains of Assam, or from the South, he will place his paw upon you and bring you under his "dominion." There is no escape for you, ruler of Khamti! King Theebaw's lot awaits you unless you humbly give in your allegiance to the Empire of India. If you do this, you may perhaps retain your title, pleasures, and a shadow of authority; you will receive presents and become as one of the hired servants; but,—dare to lift your head, and you will be smashed like a vase of which the pieces are thrown away and never spoken of again.

We approached the capital, which, save for slightly larger dimensions and a higher stockade, was not distinguishable from other villages. They led us direct to a small pavilion outside, like a music kiosk, clean and well built. Four columns supported a demi-cone-shaped roof of rice-straw thatch. Round the cornice were panels painted on a white ground to represent seated Buddhas with a flame upon their heads, cars drawn by red horses, and devadas dancing. These were like what one had met with at Laos, only rougher. Without the fence that surrounded this building long bannerols fluttered from bamboo poles. For ourselves we could have preferred better board and worse lodg-

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ing, as the inhabitants only replied to our hungry pantomime by signs that we should wait.

At the end of some time three personages presented themselves. The central one was indicated as the chief. He was a man of some stature and an intelligent face, wearing a white turban, flannel trousers in coloured stripes like a clown, a small rose silk vest, and an old patched pair of European shoes. His confederate had a white vest like the Laos, and a shrewd quick eye that recalled certain Siamese types. Until our interpreting links were all collected we sat staring at each other like china dogs. Then the story of the threatening letter from Bhamo was repeated to us, and we were asked to explain our movements. This we did as well as we could by means of a map, and with assurances that we had not been in Burmah. Already the talk began to turn upon presents; so as our translators were now tired we postponed any further discussion till the morrow. On leaving, these officials graciously gave instructions that provisions should be sold to us. We quickly realised that prices were to run high: two rupees for next to nothing; and I saw a man refuse a quarter rupee for a bit of dead wood for Nam's fire.

The early mist lifted next morning and disclosed to us the white summits of the Dzayul Mountains. We despatched the gifts we had prepared by the hands of Joseph and Sao; but they returned without effecting their purpose, and with the information that the gentleman we had seen on the previous day was only the king's son: the king, his father, would not rise before mid-day. Throughout the forenoon a peeping crowd pressed round our fence, and we felt rather like the exhibits in the Jardin d'Acclimatation, to whom visitors poke cigarettes and small coins;



The King's Son and his Escort at Khamti.

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only with this difference, here our patrons seemed much more inclined to take than give.

Yesterday's magnates having returned, we displayed our presents. They regarded them without moving an eyelid, and did not offer to touch them. We were given to understand that donations were expected by the king (who desired a repeating rifle), by the king's son, and lastly by the people. This was Tsaukan over again. Much as one liked being agreeable to chiefs who were agreeable in their turn, it was a trifle irritating to have one's benefactions dictated to one. However, we dissembled our feelings. The minister, somewhat humanised by our promises, told us he had been several times to Calcutta and Mandalay, and vouchsafed some information regarding the route.

In the afternoon we—and our gifts—were conducted through the capital to be presented at court.

The outskirts of the town were occupied by fenced rectangular gardens, in which chiefly women were hoeing; the soil looked extremely rich and well tended. Between them and the village were rows of small bamboo rice granaries on piles about 3 feet from the ground. Passing them we came to the enceinte, which consisted of a stockade made of wattled bamboos 12 feet high, supported on the inner face by an embankment. This palisade was armed at one-third and again at two-thirds of its height by projecting sharpened stakes like *chevaux de frises*. It was pierced by narrow entrances closed by a gate formed in most cases of a single solid baulk of timber.

Once inside, the detached houses did not admit of streets; but in all directions ran narrow plank causeways a foot or so from the earth, necessary in the rains. The roofs were thatched and sloping, with a conical excrescence at either end, and in the

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centre a small gable like a bonnet, that allowed light to enter and smoke to escape. At one extremity of the building was an open platform under the eaves, which admitted more light horizontally. Each dwelling ran from 80 to 130 feet in length, and was erected on piles which formed commodious pens underneath for the live stock. The whole village was arranged on a system of parallels. From one point of view, with screens hiding the foundation posts, the place seemed a conglomeration of circular huts or big molehills as one sees in Africa. With their thatch they gave me the illusion at a distance of some herd of hairy mammoths, arrested in their course by a sudden paralysis of nature.

The palace dominated the rest of the village, and was surrounded by small gardens within a paling. Save in point of size, it was very similar to the other domiciles, but had a second roof with two dragons carved in wood at the corners. We were ushered into a spacious hall beside the terrace. Tall wooden columns 27 feet high ran up to the roof, and the chamber was shut off from the rest of the house by a bamboo partition, on which were hung black Hindu bucklers studded with gold, and some lances. The beams were decorated with figures of tigers and monkeys painted red, and on the lower parts of the pillars were fastened horns of animals draped with strips of calico of bright hues. In rear of this fringe stood the royal throne. It was made of a long chest, on the front panel of which was depicted a cavalcade of gods or warriors mounted on strange beasts, evidently of Hindu design. On either side of its base twin serpents reared their heads slightly in advance of a grotesque squatting wooden effigy, in whose hands were a sword and a lance. Behind, a trophy of flint- and match-locks was arranged.

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Upon the throne a little wrinkled beardless old man was seated. He had on a white vest and a "langouti" (species of kilt) of mauve silk; a pillow and tobacco jar were beside him, and a spittoon and a long pipe at his feet. Before him were planted two gilded umbrellas. The whole was the monarch.

We were invited to seat ourselves on the floor in front of his majesty, with his majesty's son upon our right, and a group of five or six old men who had the air of councillors or notables of the place. The rest of the hall was filled with an audience of attendants and general rabble, in the background of which appeared the top-knots of several women, while some of our Thibetans gazed on the scene with open-mouthed wonder. Apart from the pomp of the reception, I was struck with the familiarity of the people, who chatted with the members of the royal party quite unconcernedly. It was not so in the Laos States. The king's son addressed his sire in a long speech, in which we supposed he was declaring who we were and whence we came. The presents were then deposited in a tray before the throne. The king rejoined by putting a few short questions to us directly. Who had shown us the way? Did we come of our own will, or were we sent by anyone? At Tonkin, how were the children? the old men? Were the people rich? Finally, he asked by what route we desired to reach Assam.

The travelled minister had already taken our names as a souvenir. The wary Joseph for his own part gave an alias, alleging that he had found it a wise precaution when dealing with a mandarin.

In the conversation, as was natural, Tonkin took chief place. We did endeavour to explain that France was at a greater distance:

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but not being engaged to give a history or geography lecture to the people of Khamti, and as we were chiefly concerned to gain their furtherance for our departure, we refrained from puzzling their Oriental brains. In the end the general impression left was, I fancy, that M. Carnot and some generals in a picture I showed were the principal men in Tonkin, and Napoleon III., whose head was on the louis d'or I distributed, was its great chief. A sign of dismissal being given, we withdrew with much pleasure. We had had about enough of social amenities for one day.

Under the palace we observed some men at work forging sword-blades; the fire was in a sunk trench, and for bellows a man seated on a trestle worked two pistons in bamboo tubes pump-wise. We had fondly hoped for some amelioration of our diet on coming to Moam. So far we had not succeeded. When we asked for victuals they replied by telling us to stay here three days longer, and not to bother about porters—an invitation capable of more than one interpretation. As we returned to our camp we met an elephant which belonged to the king. Our men were highly amused at their first meeting with such an animal. It came from Assam. But notwithstanding this and other surprises, they were quite ready to quit Khamti, where their reception had not equalled expectation. Seran-Seli delivered himself of his astonishment that the king, who reminded him of an old monkey, should have been perched on a seat while we were on the floor; and as for Nam, he regarded all the inhabitants as pigs.

We turned our enforced delay to account by visiting the suburbs and studying the population. There was a pagoda in a grove near the village, wherein was placed a row of gilded Buddhas with conical head-dress, and some smaller ones of marble, painted or

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gilded as in India. Flags bearing Buddhist subjects and Thai inscriptions hung from the ceiling, but we saw nothing unusual, artistic, or finely sculptured as in Laos. Some tablets of black wood served as boards, which were written on with a white substance obtained from the bamboo, and the bonze showed me a letter of recommendation from an Englishman, Mr. Gray, in case the priest should wish to go to India.

In the course of the day following our audience we received another visit from the king's son and his adviser. This time they smiled upon us, and brought some tubes of bamboo filled with molasses. The minister became sufficiently confidential to produce the subjoined paper for our inspection. It was in English, and ran thus:—

"This is a certificate that Hoé Daung, nephew of the Lakhoum Saubroa of Pamkouti Khamti, came to Bhamo to pay homage and respect in February '92. He was accompanied by the Amdogyi of Lakhoum, named Baraugnan, as representing the Lakhoum Saubroa. The Amdogyi and Hoé Daung were at Mandalay and Rangoon. No promises were made them, save that with regard to the claim set forth by Sankpakhou, the Lakhoum Saubroa, to be chief Saubroa of Khamti,¹ such claim should be the subject of inquiry and further consideration. By this prompt visit, bearing the homage and presents of the Saubroa, his nephew (in the place of the said Saubroa) has recognised the supremacy of the Government, and has expressed his desire to be a loyal subject, and this will be taken into account in future dealings with him. His *territory* now forms part of the district

¹ This is ambiguous: the claim has been made in the course of a past visit . . . query: an inquiry will be made in the course of our visit (future)?—AUTHOR.

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controlled by the Deputy-Commissioner of Bhamo, and he has a right to the protection and consideration of the Government.

"E. C. S. GEORGE,
"Deputy-Commissioner.

"CAMP MOGAUM, 13th March 1892."

This document confirmed our conjectures on first reaching the plain. The chief of Khamti, finding most likely his power shaken by competitors, or for some other good reason, had found it advisable to address his submission to England. He had sent ambassadors to the Indian Government, and it was probably following on this embassage that Mr. Gray was despatched to explore and thoroughly investigate the country.

Here we have the inveterate method pursued by England: an advance as sure as it is deliberate, and with no retrograde. The rule of Britain spreads like a drop of oil by a sort of inexorable law of nature and decree of destiny. Assam is one instance, absorbed fifty years ago; Upper Burmah is another, annexed within the last ten. To-day these countries are conterminous; and, united under the English flag, are boring little by little up to the very springs of the Irawadi. To the right of Khamti they are stopped by the ranges of Thibet. They will not go farther to the north-east, for two reasons,—the precipitous height of the mountains, and the nakedness of the land. Where no profits are, there is no English flag.

The minister told us also that steamers from Bhamo now went as high as Mogaung. In this again I recognised the admirable system of English colonisation. First conquer; then follow up unhesitatingly, working to turn to use what has been acquired, by pushing trade, by establishing communications, and by allowing all

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without reservation and without delay to extract the benefits from the fresh territory.

We inquired of our interlocutors as to their origin. They said the people of Khamti had always dwelt there, under their own name of Thaïs, like the Laotians. The mountain tribes to the east, west, and north of Khamti were known by the general term Khanungs. One portion of the plain was called Lakhoum, and another, comprising about a dozen villages in the west, Manchi-Khamti.

As at this point of the conversation we appeared to be on such good terms with each other, we ventured to reopen the subject of porters. In a moment our friends' faces were made to exhibit blank amazement. To the watchword "porters" the countersign was "presents." Everyone demanded something. We perceived very clearly that short of actual molestation we had fallen into a nest of brigands; should we never shake off these jackals? A petty chief from Tsaukan put in for ten rupees; we refused, having already given him enough; whereupon he laid at our feet a sword-blade sent to us from his people; and when that was also declined, said he could not take it back for very shame, what would we offer?—got rid of at five rupees. The prime minister next claimed value for an ox;—settled him, and off he went to confer with the king. The evening visits took the form of emissaries, sent to urge their own, and to decry their neighbours', merits. Altogether we received a lesson in discrimination and diplomacy.

Although at other times there was no regular market, the inhabitants preferring house-to-house exchange, one sprang up towards the end of our stay round our kiosk, chiefly for the sale of rice, vegetables, eggs, and potatoes. Salt was very scarce and

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valued highly; it was measured in small hand-scales against fragments of pottery as weights. I saw also a sort of brown wick like that for lamps, which, soaked in opium, was used in the preparation of a drink. Amber from the south was pretty plentiful, and I was shown a bit of rough jasper and some garnets like those in the Himalayas.

In the people themselves we recognised the Laotian type, which is not a strongly marked one. They had straight-set rather wide-open eyes with slightly puckered lids, broad nose, arch of eyebrow and frontal bones prominent, thick lips, and olive complexion somewhat deeper than among the folk of Laos. Most of the men were ugly; but the younger females had pleasant faces and sometimes fine eyes. As a whole, they were less inquisitive and annoying than a similar Chinese crowd, and did not mind being dispersed. The costume of the men was the langouti, and a garment passing under the left arm and fastened on the right shoulder. Nearly all carried the short sword across the breast, Kioutse fashion; these had finely tempered blades and a good balance. A rather coarse-thread stuff, with a red or blue pattern on a light ground, is made in Khamti itself, and calico prints are seen equally with vests of Thibetan poulou. The women invariably wore a blue cotton skirt, rather long and fitted to the figure. Their bosoms were not exposed as in Laos, and they no longer bathed openly in the river like their sisters of the south-east. Their carriage was erect and graceful, with short steps. Both sexes smoked pipes, bamboo-root with silver mounts, or a long cigarette made of the leaf of a tree. Other characteristics in common were the wide-brimmed, cone-crowned Burmese straw hat, and the ear-rings either of amber, bamboo, or even leaves. Except in the case of two or three chiefs who had

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English shoes, everyone went barefoot. The plain folk do little carrying; when they do, they make use of a long bamboo balanced on the shoulder with a basket at either end.

Much of our information was derived from the minister, who, when we got him alone and with the insinuation of a special bribe if carriers were forthcoming, displayed no lack of intelligence and a really remarkable memory, by which he described the routes of departure from Khamti,¹ and reeled off almost without check each day's stage for a month's march. On this occasion also we dispensed with our cumbrous method of intercourse, and got along quite as fast by a speedily established dumb-show. In the course of our talk we learned that the Singphos and the Kachins are one and the same, the first being the Thai appellation and the second the Burmese. This people, who extend south of Khamti, were described as at this very time in active warfare with the English.

A petty chief from a village to the west paid us a visit, and he too possessed a certificate from Mr. Gray. Plenty of folk hereabout expressed a desire to go to India. If the route is improved, frequent communication between it and Khamti will probably ere long be established.

The announcement—naturally not made without fresh gratuity—of twelve porters recruited for us in the mountains, made us anxious to prove the minister's itinerary without delay. From Khamti to Bishi, the first village in Assam, was said to be only nine days' march, but without intermediate settlements. To be on the safe side, we laid in supplies for eleven days.

¹ There are three routes to Assam: one to the south by the source of the river Dapha; a second by that of the river Dihing; and a third to the north by the Mishmis. The first of these only has been followed: by Colonel Woodthorpe in 1875 (1885?) and by Mr. Gray in 1893.

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The minister now requested a written testimonial in return for his good offices. He got it in the form of a notice, in French and English, warning future travellers to beware of the rapacity of the inhabitants of Khamti, chiefs and commons.

Our preparations were interrupted by the arrival of two horsemen, mounted on broad-chested, short-necked tats, like those of Annam. One of these gentry, dressed in a many-coloured langouti, fox-skin vest, and white turban, proved to be a Gourka of Nepaul, who had travelled by Darjeeling to Calcutta, and thence to Rangoon, Moulmein, Mandalay, Bhamo, and Mogaung. He spoke a few words of English, and confirmed the report of fighting between the English and the Singphos. He described how he himself, a merchant, had been made prisoner, bound, and despoiled of three thousand rupees and three cases of goods, but had made his escape minus everything. An offer which we made him to accompany our party back to India was declined, on the score of attempting the recovery of his lost effects. His presence added an entirely fresh and unexpected type of Asiatic to the motley gathering round our kiosk.

We had fixed our start for the 24th (November). The morning came, but no porters. Seran-Seli, sent to beat them up, raises three; the rest reported coming. Reappearance of king's son and minister—just to see us off, and to beg a case for the former's Winchester, which we gave rather as one does a bone to a dog. Another hour—still five carriers short. King's son issues orders to find them. This not producing the smallest effect, "Pessimus," as Joseph dubbed the avaricious Paï interpreter, sallies in quest; and—2 p.m.—returns—unaccompanied, to say that they were certainly there overnight, but have fled. Another day lost!

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As one throws out everything from a balloon to lighten it, so we decided upon a still further reduction of impedimenta; and, to this end, discarded the men's tents and as much else as we possibly could. Our men themselves proposed each to carry an additional share of the remainder, preferring increased individual loads to staying longer in this place. They had now been more than two months on the road, and were as anxious to reach India as ourselves.

We were satisfied with the look of our guide, who was a robust and thick-set fellow, with more of the hillman than the plain about him, resembling the Singphos rather than the Païs, and acquainted with the dialect of the former. He was to accompany us as far as Dibrugarh, where we hoped to reach the railway.

To fill the afternoon before our actual start, I paid a visit to the village of Panlian, about three-quarters of a mile to the south. In the pagoda here the bonzes had a large number of puppies—a regular dogs' home. I was interested in a sugar-cane press in the courtyard. Two posts, one vertical and the



Poulanghing, our Guide from Khamti.

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other horizontal, each having cogs cut in their centre, bit on each other, and crushed the cane as they revolved. A child turned the mill, and fed it at the same time; the juice running down into a hollow below. Near the pagoda stood some



Religious Monuments at Panlian.

religious monuments, in stone or hardened clay, covered with white cement. Their shape was pyramidal, surmounted by a sugar loaf, recalling the lotus knob, and dwindling above through iron rings to a point. On their sides niches contained gilt or

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white marble Buddhas, seated or recumbent. We wondered if the Khamti worshippers knew of the existence of similar shrines on the other side of the Dzayul Mountains to the north. Another monument was in the form of a tapering pillar, with a tablet as if for an inscription, beneath a gilt bird like a cock. The scene as I lingered on the brink of a stream, and watched the string of women and slow buffaloes moving homeward through the shallow ford in the mellow sunlight, was a very lovely and a lazy one, and suggested reflections on this fair region of Khamti and its inhabitants, whose artistic and indolent natures harmonised in their pose, their garments, their dwellings, and their memorials. It is a beautiful country, where everything seemed to be fitly wedded to its counterpart, under a clear sky and vivifying sun; I was tempted to apply the line—

*O fortunatos nimium, sua si bona norint,
Thaïs! . . .*

25th (November).—Positively our last morning! and a last request. The king's son, through "Pessimus," insinuated that he would be glad of my boots. This time I could not oblige him. He kept us company for some distance, and we parted friends.

It was manifest that without the help of these people we should have been hard put to it to continue our journey; but they set such an exorbitant price on their services, and showed themselves so petty in their cupidity, begging up to the last moment, that, despite their utility to our plans, they left on our minds the unpleasant reminiscence of a pack of fawning parasites. We could have wished—for their sakes, though not for ours—to see them boldly oppose our advance, and demand a healthy

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ransom. I would any day rather pass for a real brigand than for a cozener.

We had started with what porters we could get together; and every one of our party was glad to be off on this the final stage of our way to India. The men marched briskly, and sang, notwithstanding their heavy burdens, for throughout the first day our direction lay across the plain. A few insignificant rivers had to be waded, but the jungle, where it approached the paddy-fields, was of no density. At intervals we passed religious erections, in the shape of shrines, tombs, or posts about 5 feet high, most of which were partially gilded, and shone handsomely in the sun. From one village still came a demand for a gun, but it sounded only as an echo of importunity, and was treated with a shrug of the shoulders. As they continued to pester us, Anio, the plain speaker, promised to slit their throats unless they desisted; and Fa, who harboured sanguinary notions, graphically proposed to pluck out the thin hairs of their moustaches, till their faces should be as bare as the outside of a copper pot. So great a dislike had our men taken to the people of Khamti, that their commonly expressed desire was to return with a hundred well-armed men and terrorise them.

The 26th (November) saw us into the mountains; and now the heavy loads began to tell. The first ridge was gained at 4,225 feet, where, at the village of Singleng, we met with a hospitality from the wild hillmen which contrasted favourably with that of the more civilised folk of the plain. But already troubles were gathering on our horizon. To begin with, all our carriers did not get up to the night's halting-place. Further, we here learned that at least eighteen days would be wanted to reach Assam, instead of the Khamti computation, which had

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evidently been based upon relay porters and light order. From this, the extreme village, then, we were confronted with fifteen to eighteen days' march through unpeopled mountains with tired followers. And, as necessary preliminaries, we must lay in extra rice, thereby increasing the loads, and invent reliefs to carry them. It was a large mouthful to swallow, but we were in for it.

On the 27th (November), as if in answer to our presentations, the early mist rolled back, and disclosed the mighty barrier awaiting us. The sunrise effects upon its snowy topmost line and among its peaks and chasms were superb. As morning advanced, the belated porters came in by twos and threes, having slept where night overtook them, without shelter, fire, or food. They were quite discouraged. Ills rarely come singly, and we presently discovered that three of the Kioutse carriers had decamped at daylight. One result of this defection was the interruption of our link of intercourse with our guide, which had henceforth to be carried on by signs. The rest of the day was expended in unremitting efforts to recruit our carriers from the villagers. Fearing lest they should imagine they were being pressed for corvée, I gave them to understand they would be well paid. I need have been under no anxiety on this score; the Kioutses were quite alive to our straits, and demanded five rupees per man per diem, which terms we perforce conceded. As an appropriate culmination to the day's adversities, several of our own men went down with a bout of fever. I treated them with quinine and kola.

Some of the people of this part smoked opium, though not in the Chinese fashion. They cut up a bit of the sodden wick already mentioned, and boiled it in a little water. Then chopping very

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fine a leaf resembling plantain, and drying it, they steeped the fibre in the opium decoction, and smoked it in a wooden bubble-bubble.

On the 28th (November) more ballast was thrown out. We jettisoned Briffaud's valise and the frame of his camp bed, Roux's cloak, and the hammers, axes, and leather bags. It was imperative that we should have sixteen days' rations, and our only chance was to make forced marches under lighter loads. Even now, with scarcity staring them in the face, I found it hard to stir our men to a sense of the situation. Their indifference is constitutional.

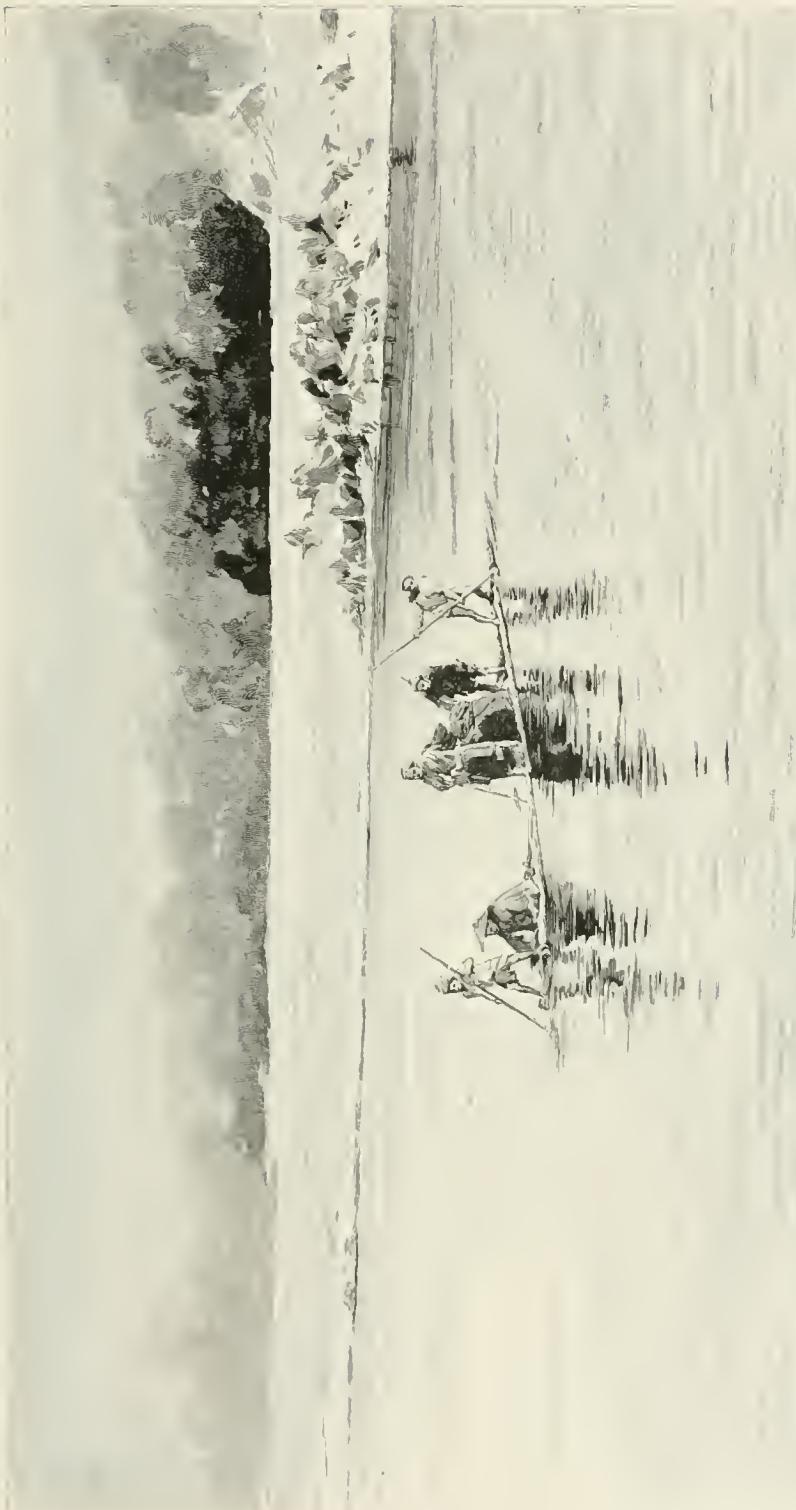
Our first camp after leaving Singleng was three miles on, and by the evening we had only accomplished half a stage. Fifteen days' food left: our reflections were not rosy. Ever since our arrival at Khamti, previously so longed for, we had had nothing but vexations; and now, when we thought our toils almost ended, the greatest difficulties were in reality beginning. There was no advantage in returning to Khamti; a lengthened sojourn there, or an attempt on another route under identical conditions, were equally futile. It was not a question of luxury but of bare subsistence, and it was annoying to feel that a slight lack of prevision should jeopardise both our followers and ourselves.

The guide, who had been away trying to enlist porters, rejoined on the 29th (November) with twelve men, and we moved off without loss of time. Our march was a rough one, partly beside a rushing grey-blue torrent, the Nam-Lang, crossed later in the day at a quiet spot, and partly in the woods. Indeed it was a repetition on a minor scale of the Kiou-kiang, not omitting the leeches. Now and then in the more open spots we saw traces of circular enclosures of crossed bamboo sticks, which may have been, as was said, intended for protection against panthers or

Rafting over the Nam-Lang,

P. H. G.

Hall



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tigers; if so, they were utterly inadequate for the purpose, and we inclined to the belief that they were connected with some religious superstition. When we bivouacked for the night, we should have felt more satisfied with the day's work if fever had not got a firm hold on four of our men. Loureti, the youngest of the troop, was the worst case, and kept up with difficulty, although the unselfish Anio took his pack as well as his own. Their condition distressed us, as we could do little to alleviate it beyond giving them flannel shirts and quinine. It is perhaps needless to say that this and the days that followed proved the utter fallaciousness of the information supplied us at Khamti. "Pessimus" had assured us we should have no more torrent scrambles; we had little else. As for Hoé Daung, the minister, he had told us that we could have no difficulty in finding the way, as there was no choice; he might have added that, for the most part, there was no route to lose. Without the guide it must have been impossible for us to guess it.

We ascended the valley of the Nam-Tsaï, finding plentiful signs of forest rangers in the spoor of antelope, tigers, and rhinoceros. We had to thank the latter for many an enlarged path and flattened bank. Poulanghing, the guide, explained that these are two-horned rhinos, and that their flesh is good. Their prints were not so large as those which I had seen in Sundarbunds. In this forest march we came to a clearing where was a muddy spring, a likely lair for wild pig. In a large tree was built a machán or small bamboo platform, whence a hunter could command the descent of tiger or rhinoceros to drink.

Near our midday halt we had a stroke of luck in the discovery of two loads of rice placed under cover, no doubt by some folk against their return from Assam. It was a godsend and a

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temptation ; we had thirteen days' food left, and the guide declared there were fifteen stages at least before we could hope to reach a village. We therefore did not hesitate, but took one basket, and left some rupees in its place. During the day we passed a crest of 6,175 feet. More evidence of tigers abounding ; by the site of our camp lay the scattered relics of some traveller, said to have been eaten.

2nd (December).—Looking out through the trees on a hilltop, we perceived, right before us, the great chain of separation between the basins of the Irawadi and the Brahmaputra. It appeared of great altitude, and snow covered its rocky summits. In the north-west, at the head of the valley into which we were about to descend, the guide pointed out a dip in the range as the pass over which our route would lie. To counteract the pleasure which the sight gave us, a number of misfortunes assailed us at once, and we saw that Fate was not going to admit us into India without protest. Roux dragged himself into camp under a sharp access of fever which had followed a night chill. Briffaud also was on the sick-list from a similar, though slighter, attack. By the afternoon Joseph and two others were *hors de combat* with ailments and wounds. A half-day halt had to be called.

To further curtail our baggage, my valise was next to go. Some of its contents we put into a lottery for the men, to keep up their spirits. The wag Pétalon drew the chief prize, a pair of double glasses. As for my poor little volumes of V. Hugo and de Musset, my companions for many a month, it was with a pang that I saw their leaves help to kindle a fire for barbarians ; the bird labels and photograph slips were transformed into quills for the ears of the Kioutses, and the pages of a dictionary went for cigarettes.

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Before turning in, all hands came for medical treatment, and I allayed their complaints as far as possible with kola, quinine, or opium pills. But it was high time to arrive somewhere ; the store of remedies was well-nigh exhausted.

When we again set forward, heavy work fell on the column in hacking a way through the bamboos and creepers. One advantage in this slow progress was that it allowed the more sickly to get up with the main body by nightfall. On the way we started some hornbills that, with enormous beaks and resounding wings, flew over our heads with much clangour. In two spots we saw deserted huts ; among the wayfarers who traverse these solitary chains many never complete their journey, victims to tigers or starvation. The first pioneers who penetrated these fastnesses must, I imagine, have done so by degrees, each improving a little on his predecessor.

4th (December).—Roux was so ill as to be unable to move, and Briffaud was not much better. As the situation grew graver, I decided to send on Seran-Seli with a flying column of a few reliable men, and the less robust, the guide, and the Kioutses. We divided the food so as to give ten days' rice at three bowls per diem, and I made up a few papers of kola and quinine for them. His detachment could move fairly, with the exception of one old Christian, whose case caused us anxiety. His heart was weak ; and it was a painful sight to see him tottering on with fixed eyes and swollen limbs ; he was too feeble any longer to bear a burden. If only we got him to a village, we might save him yet. The main body, consisting of the stronger men, our boys, Joseph, my sick comrades, and myself, must remain where we were for a day. That was the longest we could rest with safety. My further plans were that if on the [•]morrow my two companions were no better,

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they should stay where they were, with three men and twelve days' food. The others, with myself, would push on in the track of Seran-Seli on short rations, remitting or depositing as much and as often as possible for the rear party, who should follow as they were able. Distressing as it was to leave any sick in the midst of the mountains with such slender resources, this was the only feasible scheme, for the first to reach help would immediately pass it back along the line.

That tedious day of halt we spent in such distractions as each could devise for himself and his fellows. We were twenty-two in camp, including two Kioutses kept back as useful in tracking. We might deem ourselves fortunate to have round us such a loyal, enduring, and plucky band of followers. Actually, on acquainting Anio with the prospect of relinquishing the sick, he and the other Thibetans were for attempting to carry them on their shoulders, but the tangled path rendered litters impracticable.

The 5th (December) found Roux incapable of the exertion of walking, and we put our dispositions into effect. Two men remained with him, and we furnished him with nearly all our little reserve stock of candles, compressed soup, medicine, and tobacco. And so we left our comrade, reluctantly, but with good hope that before many days he would be on our trail. Heaven alone knew what would be the end of all this, and I ardently longed to see our whole troop reunited in the nearest village of Assam.

Briffaud, though much exhausted, resolved to keep going. Our reduced column had rather a hunted aspect, especially forlorn being that of the two Kioutses, who at every halt crouched with their elbows on their knees, shaking in every limb. We bivouacked that night under a big rock that offered a natural shelter in the middle of the forest. There were traces of previous travellers in

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five or six small bamboo altars with a few propitiatory grains of rice for the genius of the mountain. Before quitting the spot next morning, we left a line of encouragement for Roux to find when he came along. This was a terrible day in all respects. We made a late start in shivering cold, which was not improved in my own case by an involuntary bath in an icy torrent. Fever, too, laid hold of Joseph. At a little over 7,000 feet we came into the region of conifers, which we had not seen lately, and shortly after reached the snow. It was only ankle deep, but the shoulders of the great chain to our left were spread with flawless folds. From the pass we were on we could see behind us the Nam Phungan valley, the wide depression where Khamti lay, and in the background a tumbled mass of mountains, to the right of which a white line marked the dividing range between the Salwen and the Kiou-kiang; it had not its winter coat when we traversed it. Before us the valley of the Dapha burrowed into the hills, and on our right loomed the dim outline of big Daphaboum. From this point the downward streams we should cross would be bound for the Brahmaputra. We had done with the basin of the Irawadi, and our feet were now in India,—India the rich, India the wonderful, a name to conjure with, and a land to conquer from the days of Alexander to Napoleon. I could hardly believe that our object was so nearly attained, that we had achieved our design in its entirety; explored the Chinese Mekong, fixed the sources of the great English Irawadi, and debouched on India; that it had been reserved for us to fulfil the dream of so many Englishmen, by finding the shortest route from China into India.

But imagination outstripped reality. Soon after passing the col, word was brought that Joseph, far in rear, was prostrated by fever. To forsake him there was certain death, to send back a

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man with food to stand by in an exposed, waterless spot would court the loss of both. In this crisis Anio again came to the fore, and volunteered to go back and bring him in; or, if that were impossible, to get him over the pass into shelter. We gave him godspeed and a supply of food. At the same time one of the Kioutses, a rice bearer, dropped behind shaking with cold and fever. We could not stay in the snow, and went on until we came to the ground where the advanced party had passed the preceding night. We found two of them awaiting us with the news that the old Christian had disappeared the evening before. Seran-Seli had searched long and unremittingly, but without success, and it is to be feared the poor fellow crawled into some hole, where he succumbed to his privations, or fell a prey to wild beasts. A great grief fell upon the whole troop at the loss of a member of our united little family—a feeling rendered more melancholy by our inability to recover and bury his body. In the evening, after mealtime, when the moon was up and the wind blew cold off the snow-fields, the men knelt in a circle round the fire with their faces turned towards Tsekou. Even we were shivering; but the Thibetans, with bare limbs and uncovered heads and their tchaupas thrown open at the chest, recited the litanies for the dead. There was something deeply moving in the sight of such simple mourning, and we joined them with sincere reverence. When we set forward on the next morning, the men out of respect left on the spot the few coverings that had been the old man's. And that was all his monument.

7th (December).—Joseph and Anio happily rejoined us; but our concern was transferred to Briffaud and another, who were in a very weak state. We made a short stage, but it was downhill towards the Dapha, and the sun both warmed and cheered us.

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There was plenty of talk in the troop of "Kalikata" (Calcutta), and Anio declared that he must learn some English words, notably "wine" and "sugar," for with the former one could laugh at fever and cold. The big heathen, Atong, had a remedy against these foes in a bowl of hot water, into which he scraped a couple of pimentos and some ginger.

Throughout the forenoon of the 8th (December) we followed a wooded track on the left bank of the Nam-Dapha. I went on ahead, and had a regular paper-chase in discovering the blazed trees and broken branches of the advanced column from among the numerous false scents of wild animals. We could not have been far behind the others, for at one place we found the embers of their fire still smouldering, and a mouké or tally, on which were cut some Thibetan signs to warn us that there was no water in front. We therefore provided ourselves with bamboo tubes full, carried in bandolier. A large monkey which I shot proved a welcome addition to the camp kettle. It was of the fair sex, and very tough, but we picked her bones. A wearisome climb had taken it out of us, and the bivouac was one of general dejection. Each one realised that it was a struggle for life now; the Kioutses contradicted themselves every hour. Many footprints of tigers cutting the fresh ones of our men showed the sympathetic creatures had wind of us. But I had no desire here for a return call from those old friends, whose acquaintance I had formerly sought in India, and guns were fired at dusk to warn them off.

9th (December).—We had only rice for one more day and a breakfast. At daybreak Anio despatched the two Kioutses to catch up the leaders, who had two days' more supplies than we, and to tell them to leave a little by the way for us. The march was now along crests, and in the afternoon we viewed through the

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trees the end of the mountains and a distant plain, in which the Dihing lay like a ribbon. Safety looked a long way off. The only water we found on this stage was dark and brackish; but we made tea with it, called it coffee, and drank. No stragglers on this day.

10th (December).—The descent continued of a kind which frequent falls had rendered familiar to us, down a watercourse, from rock to rock. In the tops of the trees grey apes with black faces swung by their long tails, and Sao managed with his Winchester to bag a little one, which did not go far among so many. A thread of smoke to our right attracted us, as it had been intended, to the site of the previous camp; and there, on a bamboo decorated with plantain leaves, Seran-Seli had hung a little bag of rice, showing that our Kioutses had overtaken him. This furnished us with a meal, which was taken at once. Two more men (Tatou and Pétalon) fell out. We could not stop for them, but left them in charge of each other. Anio now marched so fast, almost at a trot, that I could scarce keep up with him. A mountain river of considerable dimensions and strength next confronted us, and demanded three separate fordings at spots marked for us by pyramids of stone. The water was cold and the bottom ragged, so that the performance was not an enjoyment. Wet to the waist, we mended our pace, hoping to come in sight of a village at every bend of the stream. Instead, to our chagrin, we stumbled on to a bank of sand, where further footprints ended. Some tree trunks thrust into mid-current showed that someone had attempted a bridge, and failed. There was no evading it,—into the water we must go again. But we had had enough for the day, it would keep till the morning; and I called a halt.

The men had nothing to eat, but there was still some tea, so we

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crowded round the fire, and were not more down-hearted than was necessary. This time, at any rate, we were at the foot of the formidable chains for good. Had I been in the humour to admire nature at this period, I should have been struck with wonder at the scene which the sunset lit for us. The head of the valley was closed by a bold buttress of the remoter mountains whence we had come. Low down by the river the trees already lay in softened dimness, but the departing light was moving slowly upwards from slope to sheer, blending bands of deepening heather shadows at the base as though laid with the broad sweep of a painter's hand, until aloft as it touched the cameo-tinted snow the purple paled to violet and the violet blushed to rose. This was perhaps the last look we should have of the Dzayul chain, where its final limits reach the borderland of India.

11th (December).—Abandoned the tent and other portions of baggage. After reconnoitring the bridge end and finding deep water, the men scattered up and down the banks to seek a passage, but returned nonplused. As they huddled like sheep and hung back, Sao cut the knot by plunging in and struggling through,—the water was up to the arm-pits, and bitterly cold. The whole of the day we followed the windings of the valley, now on the margin, now in the woods to cut off promontories, and in narrow places we laid bamboo slides. The work was nearly as bad as that by the Kiou-kiang. Empty stomachs caused our knees to knock and our heads to swim, and the advance left a very vague impression on our minds. Anio had got ahead of us, still bearing his pack, and, notwithstanding that he had had nothing to eat since noon of the day previous, he sang or whistled as loud as he could to cheer us whenever he stopped. About four o'clock I heard shouts and a gunshot from the front, and with my field-glasses distinguished

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more than one figure. Presently we came up with Anio sitting on a stone, and with him Iayo, one of the Thibetans of the leading column, and a Kioutse. Best of all to our famished eyes, they had rice for us. In a short time we were seated round a bowl, which to my mind tasted better than the finest dinner at the Café Anglais.

The news of the first division showed that they too had been in a critical situation. Three Kioutses had been lost, and only found that morning; when the guide cheerfully proposed to have them killed. But Seran-Seli had fallen in with four hunters belonging to a small village, which we might hope to reach next evening or the day after. Thus reassured, we called for volunteers to start back for Tatou and Pétalon, the two we had left yesterday. At first the reward offered did not meet with any immediate response; their sufferings were too fresh to make any anxious to retrace that route. Eventually Iayo and a Kioutse declared themselves willing, and departed. Poor Iayo's courageous devotion deserved a better end than he shortly afterwards met from sickness in Calcutta.

Throughout the 12th (December) we proceeded more leisurely along the shores of the Nam-Dihing. The hills receded, and left room for many branches and islets and sandy bars, on which traces of wild oxen were frequent. Nevertheless we had not done with crossings yet, and four times in as many miles did we ford the stream. The end came at length, and quickening down an excellent path we saw with joyful eyes a field of millet and a house.

Seran-Seli and the guide were waiting for us. The last fourteen days had made us feel like shipwrecked sailors sighting land again. Our satisfaction was only marred by the thought of those still

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behind us in the mountains. We could not but feel very anxious till we could succour them. As an immediate measure, people were set to work preparing rice for the relief column.

The village we had lit upon was Bouniang, on a confluent of the Nam-Dapha, two days from Bishi. The inhabitants and their language were strange to us. They were styled Khamangs by our guide. These Khamangs, I discovered, were no other than the Mishmis, the English calling them by the latter and the Singphos by the former name. I was glad of the chance of seeing these noted Mishmis, of such fierce repute, among whom Fathers Krik and Bourry met their death, and who are opposing the English by the Dzayul valley. They are more like the Païs than the Kioutses, being almost brown, with rather large noses and cheek-bones, and small chins. They wear their hair in a knot on the top of their head, and are clad in a sleeveless coat to the knees, open in front, and a loin cloth; over their shoulders they occasionally throw a covering like the Païs, either striped brown or all scarlet. Their ears are pierced with a metal tube, to which sometimes a ring is hung. Slung across the shoulder are a slender sword, and a pouch made of the skin of a wild animal. The women have in front of their hair a silver crescent held behind by cowries, and the knot above is transfixed by wooden pins. A thin silver circlet with a small cock's feather is fastened to the upper part of the ear, and necklets of brass wire or glass ware are also seen. They wear a sort of waistcoat, brown, short-sleeved, and cut in to the figure before and behind.

The dwellings were small, and on piles. The construction of their tombs seemed to point to a more religious, or at any rate superstitious, character than that of the Kioutses we had hitherto met, nor were they less distinguished from them in their bellicose

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humour. A couple of our men having dug up some potatoes in a field, the chief of Bouniang made for them with a knife.

Some of our folk had gone to a neighbouring village to forage, and now returned at the head of a company clothed in all respects like Païs, and resembling them also in face. They proved to be Singphos. Their leader wore a long toga of Thibetan poulou, and brought us a gift of eggs, fish, and rice.

By the next morning sufficient supplies were collected to start off a rescue party of three men under Oumbo, with enough for a six days' march and back, revictualling Roux's and Layo's detachments *en route*. I felt easier when they had gone: provided that our comrade had succeeded in passing the col, he would be out of danger.

We ourselves proceeded across the valley of the Dapha. This river rolls down from the north in many branches over a pebbly bottom, and was perhaps a hundred yards from side to side. Higher up it must have an imposing course; here it was easily fordable. On the farther shore we came to three long buildings, each over 60 feet long, as at Mélékeu. This was Daphagang. We did not at first understand the meaning of our cold reception; we were prevented passing through a house, and told that it was *de règle* to make your entry and exit by the same door, and though live stock abounded there was an evident disinclination to deal. The enigma, however, was soon solved. The chief being rich did not want money; what he desired was a certificate and some European object at our hands. We luckily had a pair of double glasses left, and the clouds were immediately dispelled. The language of these Singphos differed again from previous idioms; they were familiar with several Hindustani words.

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We had thought that henceforward our progress was to be little more than a promenade. But we were undeceived in several particulars. On continuing we had a splendid path until midday through trees, among which we startled many large monkeys and hornbills, and elephant trails were fresh and misleading. But after that the track was lost, and for several miles we had to tear our way through thorny undergrowth and



Ford on the Nam-Dihing.

stony nullahs. When we struck the Nam-Dihing on the left bank, a precipitous bluff stood full in our way, with no passage between its base and the water. It had therefore to be assailed in flank, and proved a hard nut to crack on account of constant backsliding and falling stones dislodged by the leading files. It was a curious landmark, obtruding itself 100 feet high from the otherwise level surroundings. Down by the river again we found a reed hut with four Singphos fishing. They sold us

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twenty grand fish, mahseers, many weighing over 5 lbs. If I had had lines, and had not been so tired, I must have joined them.

The valley of the Nam-Dihing is wide, and bounded by low wooded hills. The river-bed in which we walked for some distance testified to the size of the river in flood. As it was, we had to ford it in many arms, and at the village of Mong-Pien to cross by raft. At the latter place we were well received by the people, who let off guns in our honour, and amongst whom we met a young man who had been guide to Colonel Woodthorpe in 1875 (1885?) and later to Mr. Gray. Bishi was declared to be but a short distance farther.



Chief at Bishi.

At our approach the aged chief of Bishi came out to meet us, and escorted us to a house where we made ourselves comfortable once more within four walls. This was on the 16th (December).

During the three days which we spent at Bishi we lived on the fat of the land, and the time passed agreeably, but for

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anxiety on Roux's account. The men did not prepossess me very favourably even in comparison with the Khamti Thaïs, being their inferiors both in industry and civilisation. Round the fire in the evening it was interesting to reckon up the different tongues which were trying mutually to converse: they were nine,—Chinese, Thibetan, Mosso, Lissou, Loutse,¹ Thai, Singpho, Mishmi, and Hindu, called here Monam.

In a corner of an open space of the village were two rows of five small holes with two larger ones at either end, into which the people tossed small pebbles. I did not understand the game, but I had seen something similar played by negroes at Majunga. Outside the village there was a clearing beneath some large trees, which seemed as though intended as a place of prayer. Along the path that led to it trunks of trees, cut longitudinally, faced each other in pairs, with a third, the bark of which hung in shreds from half its height, in the middle. The adjacent woods appeared full of game.

On the 17th (December) Iayo, Tatou, and Pétalon came in. The two latter had given themselves up for lost by the time aid reached them. They said that they found in the sand the footprints of a tiger which had regularly followed our column, like a shark in the wake of a ship.

By the 19th (December) we had hoped to have news of Roux; but none coming up to that date, and the feeding of so large a number of visitors taxing the resources of the place, we deemed it expedient to move on by slow marches into the plain. Accordingly our troop left Bishi on the 20th (December) in the morning. Sao, Joseph, and I were to follow at noon. We

¹ The Kioutses from Singleng spoke a slightly altered dialect. They called themselves Métouans.

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intrusted a letter and some money for Roux to the chief, with injunctions that as soon as he should be signalled a messenger should be sent after us. I had just gone into the house, when Sao came running in, calling, "Here he is!", and "Loutajen!" shouted Joseph at the same moment from without.

The joy with which we met may be imagined. We both breathed freely again, and a great weight was lifted off my mind. The whole party was safe and sound, and could afford to look back upon deliverance from a very near thing.

Roux's story was as follows: For two whole days after our departure he had been unable to move. The fever then abated, but left him very weak. By the time they got to the pass fresh snow had nearly obliterated our tracks. They were disturbed by the nightly proximity of a tiger, doubtless the same that snuffed us, whose respect evidently decreased as numbers diminished. When they reached the Nam-Dihing they were stopped by a spate, and one of them narrowly escaped drowning while trying to make a bridge. As it was, he was cast ashore on the wrong side, and passed the night without fire or food, and soaked. The "Doctor" and the other meanwhile retraced their steps through the woods in the dark in search of a ford, with the agreeable reflection that they were cut off by a big river with almost empty haversacks. Their disquietude was augmented by the discovery of our abandoned baggage; they dreaded lest the next turn should disclose the starving remnants of our column. The relief did not fall in with them a moment too soon.

Our whole strength reassembled at Khagan, with hearty congratulations at our reunion. From there we descended in four days to Sadiya. Everywhere our welcome was cordial. The English Political Agent at the latter place, to whom we had notified

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our coming by courier from Bishi, had issued orders that every possible facility should be given us, and himself kindly sent us a most acceptable present of preserves.

On the 21st (December) we found elephants awaiting us, provided by the same gentleman's forethought; and for the first time for months we were able to spare our own legs and smoke our pipes in luxury.

The intermediate villages were mainly Singpho, and a few Thaï, the latter easily recognisable from their religious posts in shape like elliptical roofed houses, such as we had already seen in Khamti. The scenery much resembled that of Laos; dwellings appeared amid palms and plantains. Between the villages we traversed extensive woods and paddy-fields, where the startled buffaloes wheeled into line of battle as we passed. We certainly formed a queer troop. At the head we rode on elephants, and behind us wound our porters, their grey tchaupas contrasting with the brighter garments of the Singphos in the sun. We might have been taken for a string of prisoners or a procession of penitents. Nam's behaviour at this time was that of a little child; he was



Singphos.

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continually stopping to smoke pipes with the villagers and getting lost. It was a wonder he was not left behind. At the large village of Ninglou we were received by the white-bearded chief, who, with his son, was clad in Chinese robes of gorgeous silk, with a gold dragon embroidered on the front. This venerable personage was

a Singpho of importance; three men behind him bore a white umbrella and two red banners. He presented a letter to us from Mr. Needham at Sadiya. It was a pleasure to me to remark several Indians at Ninglou. After a year spent among the peoples of the Mongol race, these Aryans, with their lively eyes, profiles, and beards like our own, seemed almost brothers; as indeed the Indians



Singpho Woman.

are, elder brothers. Joseph's delight, too, at seeing a real shop again and comparing its prices with those of Tali, was amusing.

On the 24th (December) Roux and I descended the remaining reaches of the Nam-Dihing for some hours in a pirogue to the Brahmaputra, which at this point was 100 yards to 200 yards

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wide, with a slow current. In the west and north-west we perceived the distant ranges behind which lies an unexplored territory, the Tsangpo valley. In the course of the afternoon we disembarked at Sadiya, where hearty greetings were exchanged with Mr. Needham.

Sadiya is the extreme north-east outpost of the British Indian Empire. Mr. Needham's position is that of Assistant to the Political Service, and he is in supreme and sole charge. He has passed twenty-eight years in India, and exercises the functions of Resident, judge, and commandant of the troops, of whom there are one hundred under native officers. Another five hundred sepoys could be summoned by telegraph within twelve hours, should emergency arise. In addition to the importance involved by his relations with the frontier tribes, he governs in and around Sadiya more than sixty thousand people. After twenty-eight years passed in India, thirteen of which have been spent in the district, he speaks, besides Hindustani,—Bengali, Thaï (of which he has compiled a Grammar), Singpho, Assamese, Abor (also with a Grammar in preparation), and Mishmi. What an example to France of the right man in the right place! and what a simplification of the world of *vice-résidents*, *commis de résidence*, and *chancelliers* all engaged in manipulating the papers which we deem indispensable to the administration of a province. Here, one hand controls the whole. It is true that he is well paid, and that after thirty years' service he will be entitled to a pension. He submits his claim for travelling expenses, and it is discharged to him direct. There is none of that system of mistrust to which we are too prone. The English place implicit confidence in the zeal of their officers to work their hardest for the interests of their empire.

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The pacification of Upper Assam has not been an easy undertaking. For many years the English have had to maintain frequent feuds with the Khamtis and the Singphos. At present the country is fairly quiet. The Singphos have been allowed their independence under a chief, who reports to the Imperial Government the movements and intentions of the neighbouring tribesmen. In return he receives a subsidy. It was he whom we saw at Ninglou. His subjects pay no taxes to the English, but they are sometimes employed as coolies on such public works as the making of a road or a railway.

To the north the Himalaya Mountains, through which the Tsangpo and the Lohit or Dzayul rivers fret their way by narrow gorges, are infested by tribes which, although adjacent, differ from each other both in speech and customs. This aggregation of little-known and inaccessible peoples, always wild and generally fierce, constitutes a regular Babel. Whence they came; how, having pitched on the southern flank of the Himalayas overlooking India, they have yet preserved their individual distinctions; and why, if they are of a common stock, they are so dissimilar, are problems still unsolved.

Among these populations the most important is that of the Abors, who occupy the hills to the north and north-west of Sadiya. Their name for themselves is Pandam. Next to them come the Miris, who in successive raids burned three villages in the plain. The Abors having killed some native soldiers in an ambuscade, a punitive expedition was recently sent against them, and encountered great physical difficulties. Mr. Needham described them as having no chief, and as making slaves. Their villages are large collections of from seven hundred to a thousand dwellings. They invariably put all prisoners to the sword, and

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strip the dead. In the late operations the troops had to escalade abattis 1,800 yards long formed of stones and trunks of trees. Seven or eight villages were burnt, their cattle slain, and their cultivation trampled by elephants. In this way the English make their power felt. At the time of our visit the Abors were blockaded in their valleys, and forbidden to sell anything in the plain on pain of death. We, however, had a sight of a few who had been allowed to come down and tender their submission to the Government with offerings of the large short-horned black cattle called gayals. They had olive complexions, straight-set eyes, nose and mouth large. From their habit of shaving the crown of the head, they looked at a distance as if they had caps. They wore a short-sleeved red garment and small loin cloth. Some Mishmis whom we also saw at Sadiya had small conical hats of plaited bamboo. We were shown some of their earthen vessels, which seemed to corroborate the account of the pandits of parts of Thibet where stone utensils are in vogue.

During our three days' stay at Sadiya, Mr. Needham drove us round the neighbourhood. A loaded Winchester and a revolver were advisable to guard against ambushes, which are frequent. It is by clearing the bush, the gradual making of roads, and the establishment of small blockhouses with patrols between them, that little by little the settlement of the district is being effected.

From Sadiya the descent to Calcutta is easy. A few hours of pirogue to Talap, and thence by rail to Dibrugarh. As far as the eye could reach the country was covered with tea plantations.

From the official statistics of tea culture in Assam for 1894 we took the following figures:—Acres under cultivation, 268,796; number of gardens, 823; permanent labourers and overseers, 331,807; temporary ditto, 98,043. Picking, approx., 94,829,059

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lbs. In Calcutta the pound fetches on an average from seven to eleven annas. We visited a garden at Talap. The tea is not planted on the hills but well in the plain, on round cleared but not manured, with intervals of 4 or 5 feet between the bushes. Two coolies are enough to an acre. When the leaves have been picked, in March and September, the plant is cut back to within 6 inches of the ground. The best seasons yield 900 lbs. an acre per annum; the tea begins to pay after three or four years. The plantation at Talap was of 1,350 acres, and the usual number of plants is 2,700 on an acre.

In the centre of the plantation are the coolie villages, the large two-storeyed bungalows of the Europeans, and the buildings where the leaf is prepared. These houses are often as much as 130 feet long, built of bricks, with corrugated zinc roofs. In some is the steam machinery, and in others the drying process is carried on.

The prosperity of the tea plantations of Assam is due not only to the spirit of enterprise in those who made them, but also in a large measure to the labour regulations. The coolies are recruited in Bengal, whence the journey of each one costs a hundred and fifty rupees; and they engage of their own free will for a term of three years. Should anyone during that time desert, and be captured, he is first imprisoned and then handed over to his master. Escape is not easy, for to stay in Hindu Assam is to be retaken, and to seek refuge with the Singphos or the hill tribes is to be enslaved. The intervention of the Government, which we should call forfeit for breach of contract, secures the employer. "If we had not this safeguard against any who chose to break their agreement," said an overseer to me, "we could not risk the capital which we put into the plantation."

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Of course, when recruiting, the usual attractions are held out to the men,—healthy country, plenty to eat, nothing to do. These enticements are no more than the baits employed for the enlistment of soldiers or sailors.

If the employers can count on the support of the Government to ensure the conditions of their labour, the men on their side can also claim the protection of the same power. Twice a year the plantations are visited by official inspectors, who inquire into the treatment of the coolies, see that they are properly housed, and that hospitals are provided for the sick and schools for the children. It is this direct interposition of the Government of the Queen to which Assam owes the opulence and air of thriving vigour which I envy for our own colonies. In Annam, as I have said, we possess splendid land well suited for the culture of tea. The French colonist ought similarly to be able to look for the help or at least the non-hostility of his Government in his efforts to achieve fortune.

From Dibrugarh we descended the Brahmaputra by steamer. The service is a daily one, and the boats excellent. Along the river banks torpid crocodiles basked on sandy bars, and offered tempting shots for our carbines. After the tea country came the fine plain of Assam, with frequent towns—Tespour, Gauhati, Goalapura; at each numerous steamers lined the bank. On all sides were proofs of wealth, power, strength, and success. At the stopping-places we usually went ashore to stretch our legs, see the market, or loiter before the shops, where to our unaccustomed eyes all seemed fresh. On such occasions our men would follow us about, exclaiming at each step, like schoolboys. And right well had they earned their holiday, after the life they had led and the trials they had gone through, and the

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manner in which they had given us their entire trust and devotion without a murmur. This was paradise to them, and they plied us with astonished questions. Like ourselves, they were struck by the prosperity of the country. We told them how the "*Inquijens*" (English) had only been in Assam for fifty years; but to attempt an explanation of the reasons for their welfare to a Thibetan comprehension was too complicated. Moreover, in the colonial spirit of our rivals there is not a little affinity to the commercial side of the Chinese.

As I admire the work of the English, I look round upon ourselves, and think of what is wanting to make our colonies prosperous like theirs. It is continuity of policy; it is the grand freedom of the colonist, backed up by his Government; it is a simplicity of administration in the hands of able men who know their way and take it.

There is no use in hiding one's head ostrich-like under a stone. It is better to look the truth in the face. In no set of circumstances has *γνῶθι σεαυτόν* more significance than in colonial affairs, in which it behoves us to take a lesson.

And all the while that I am making these reflections and comparisons I cannot dispossess my mind of the thought that the whole of this rich expanse ought to have been ours.

"'*Inquijen' prehendunt bonas terras!*'" cried Joseph as we descended into the plains of Assam. Yes; the English have taken India, and we let them do it. The ineptness and ignorance of a monarch with ill counsellors allowed our rivals to win an empire whose foundations were laid by a few resolute Frenchmen. Yet, if there is any consolation to be derived under the loss of one of our children, it is that of seeing it grown into a strong man, and of knowing that to make it so its guardians

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followed the lines of its first instructor. Over India the mighty shade of Dupleix ever watches. Though the patriot died in his own country, poor, unknown, and deserted, his memory lives. No one knew better how to render justice to the generous and wide-reaching schemes of Dupleix than his greatest antagonist, Clive. It is with the same perception that Colonel Malleson has written (*Hist. of the French in India*) :—“If, in the present day, there exist among her citizens regrets at the loss of an empire so vast, so powerful, so important, . . . it will be impossible for France herself . . . to suppress a glow of pride at the recollection that it was a child of her soil who dared first to aspire to that great dominion, and that by means of the impulse which he gave, though followed out by his rivals, the inhabitants of Hindostan have become permanently united to their long-parted kinsmen—the members of the great family of Europe.”



Thibetan Dwelling.

A P P E N D I C E S

APPENDIX A

LIST AND DISCUSSION OF SCIENTIFIC OBSERVATIONS

TAKEN AND CALCULATED BY

M. ÉMILE ROUX

ENSEIGNE DE VAISSEAU

I. LATITUDES

Numerical Order.	Name and Position of Place of Observation.	Latitude.	Method Employed.
1	<i>Pho-lu</i> , Red River (Upper Tonkin), near the post	$22^{\circ} 21' 30''$	Pole Star (Theodolite).
2	<i>Manhao</i> , Red River (Yünnan), market by river-side	$23^{\circ} 00' 45''$	Circummeridian altitudes of sun (Sextant).
2 bis.	<i>Manhao</i> , Red River (Yünnan), market by river-side	$23^{\circ} 00' 15''$ Mean adopted for Manhao : $23^{\circ} 00' 30''$ $23^{\circ} 20' 15''$	Two groups of circummeridian altitudes of the sun (Theodolite).
3	<i>Mongtse</i> (Yünnan), court of the French Consulate at $1' 2''$ S. of the centre of the town		1 Circummeridian altitude of sun (Theodolite). Result uncertain ; the theodolite being insufficiently rectified.
3 bis.	<i>Mongtse</i> (Yünnan), court of the French Consulate at $1' 2''$ S. of the centre of the town	$23^{\circ} 21'$	Pole Star (Theodolite). Direct measurement by sun.
3 ter.	<i>Mongtse</i> (Yünnan), court of the French Consulate at $1' 2''$ S. of the centre of the town	$23^{\circ} 21' 55''$ Adopted for Mongtse : $23^{\circ} 21' 30''$, mean between 3 bis. and 3 ter.	Circummeridian altitudes of sun (Theodolite).
4	<i>Fong-Chen-Lin</i> (Yünnan)	$23^{\circ} 4'$	Circummeridian altitudes of sun (Theodolite).
5	<i>Oua-Kouitsen</i> (Yünnan)	$23^{\circ} 7'$	Meridian altitude of sun (Sextant).
6	<i>Tamatolo</i> (Yünnan)	$23^{\circ} 10'$	Meridian altitude of sun (Sextant).

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Numerical Order.	Name and Position of Place of Observation.	Latitude.	Method Employed.
7	<i>Ta-Min-Mi</i> , Red River (Yünnan)	$23^{\circ} 11'$	By deduction from the latitude of Tamatolo. See note.
8	<i>Mai-Cheu</i> (Yünnan)	$23^{\circ} 18' 30''$	Meridian altitude (Sextant).
9	<i>Isa</i> , above the Red River (right bank) (Yünnan), camping ground on mound to W. of town	$23^{\circ} 22'$	Pole Star (Theodolite). Direct measurement by Sirius.
10	<i>Souto</i> (Yünnan)	$23^{\circ} 19' 30''$	By deduction from the latitude of Isa.
11	<i>Sou-Tchou-Sai</i> (Yünnan)	$23^{\circ} 9' 30''$	Circummeridian altitudes of sun (Theodolite).
12	<i>Sama</i> (Yünnan)	$22^{\circ} 57'$	Circummeridian altitudes of sun (Theodolite).
13	<i>Point on the Black River</i> (Li-sien-kiang), at intersection of route from Isa to Muong-Le	$22^{\circ} 49'$	Circummeridian altitudes of sun (Theodolite).
14	<i>Muong-Le</i> (Yünnan), centre of town	$22^{\circ} 35' 20''$	Circummeridian altitudes of sun (Theodolite). 28th March.
14 bis.	<i>Muong-Le</i> (Yünnan), centre of town	$22^{\circ} 35'$ Mean adopted for Muong-Le:	Circummeridian altitudes of sun (Theodolite). 29th March.
15	<i>Ta-Koue-Lin</i> (Yünnan)	$22^{\circ} 35' 10''$ $22^{\circ} 33' 30''$	Circummeridian altitudes of sun (Theodolite).
16	<i>Im-Pou-Tsin</i> (Yünnan)	$22^{\circ} 37' 45''$	Circummeridian altitudes of sun (Theodolite).
17	<i>Ssumao</i> or <i>Semao</i> (Yünnan), court of the inn Ou-shing-hao	$22^{\circ} 46' 07''$ $22^{\circ} 46' 47''$ $22^{\circ} 45' 50''$ Mean adopted for Semao:	6 Circummeridian altitudes of sun taken 2 by 2 (Theodolite).
18	<i>Kotchiento</i> (Yünnan), to E. of Ta-lotsin chain	$22^{\circ} 46' 30''$ $22^{\circ} 39' 25''$	Pole Star (Theodolite). Direct measurement by Sirius.
19	<i>Tian-Pi</i> , point where the Mekong is intersected by the route from Semao to Dayakeu (Yünnan)	$22^{\circ} 37'$	Circummeridian altitudes of sun (Theodolite).
20	<i>Nampe</i> , point where the Mekong is intersected by the route from Chuen-lo to Mong-pan (Yünnan)	$23^{\circ} 00' 45''$	Circummeridian altitudes of sun (Theodolite).
21	<i>Mang-Kai</i> (Yünnan)	$23^{\circ} 13' 41''$ $23^{\circ} 13' 17''$ Mean adopted $23^{\circ} 13' 30''$	Two groups of Pole Star altitudes (Theodolite). Direct measurement by Venus.

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Numerical Order.	Name and Position of Place of Observation.	Latitude.	Method Employed.
22	<i>Mong Ka</i> (Yünnan)	$23^{\circ} 25'$	Circummeridian altitudes of sun (Theodolite).
23	<i>Mienning</i> (Yünnan), court of the inn lang-Ching, suburb E. of town	$23^{\circ} 53' 45''$	Pole Star (Theodolite). Direct measurement by moon.
24	<i>Tcheya</i> (Yünnan)	$24^{\circ} 12' 45''$	Pole Star (Theodolite). Direct measurement by Venus.
25	<i>Yinchou</i> (Yünnan), court of the inn Fou-tchi-tchou	$24^{\circ} 25'$	Circummeridian altitudes of sun (Theodolite).
26	<i>Chunning-Fou</i> (Yünnan)	$24^{\circ} 34' 15''$	Circummeridian altitudes of sun (Theodolite).
27	<i>Tsa-Fa-Se</i> (Yünnan)	$25^{\circ} 01' 30''$	1 Circummeridian altitude of sun (Theodolite). Direct measurement by sun.
28	<i>Tali-Fou</i> , court of the Catholic Mission in the centre of town	$25^{\circ} 42' 30''$	Circummeridian altitudes of sun (Theodolite).
29	<i>Kiang-Pin</i> (Yünnan)	$25^{\circ} 59' 25''$	Pole Star (Theodolite). Direct measurement by the Great Bear.
30	<i>Yun-Long-Cheou</i> (Yünnan)	$25^{\circ} 47' 15''$	Pole Star (Theodolite). Direct measurement by Sirius.
31	<i>Pen-Tchou-Miao</i> , near Tchelotsen (Yünnan)	$25^{\circ} 48' 15''$	Pole Star (Theodolite). Direct measurement by Venus.
32	<i>Hekipa</i> , above the route from the Mekong (Yünnan)	$26^{\circ} 22' 30''$	Pole Star (Theodolite). Direct measurement by the Great Bear.

The two instruments used for determining the above latitudes were—

- (1) A Hurlmann sextant graduated to $10''$, and
- (2) A Hurlmann small theodolite graduated to $1'$.

The sextant observations are subject to errors of centring, both constant and variable, amounting in the best instruments to $1'$; so that the readings apparently true to $10''$ are not absolute. The error can only be partially rectified by taking the meridian altitudes of two stars, one to the north and the other to the south, and adopting the mean of the results. This proceeding, however, requires both time and patience, and the care and difficulty attending night observations with the sextant are well known.

Moreover, in tropical and semi-tropical countries these latter methods are the only ones possible during the greater part of the year. From the 8th of March I was obliged to discontinue the use of the sextant for obtaining latitudes by observation of the sun, the double meridional altitude on that date reaching 126° , or almost the extreme limit of the graduations. From latitude 23 the instrument became unavailable until October. Added to which the necessity for having a

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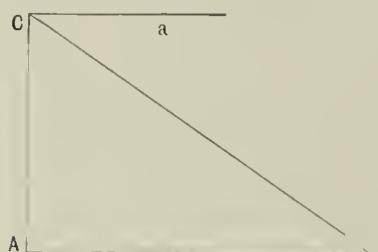
sufficient quantity of mercury for the artificial horizon, and of keeping it perfectly clean, are further drawbacks when on the march. For the foregoing reasons, I soon gave up using the sextant in favour of the theodolite. By land the latter instrument is far handier, and quite as accurate. By always taking double observations of the altitudes—that is to say, with the telescope on the right and again on the left—the errors of collimation and level are eliminated; and as it is easy to estimate to $\frac{1}{2}$ and even to $\frac{1}{3}$ of a division, one can count on being correct to $30''$.

I most generally employed the method of finding the latitude by two circummeridian altitudes without previous calculation. This has the advantage of dispensing completely with the knowledge of absolute values, and it is sufficient to have a good watch with a second hand to mark the exact interval of time between the two observations, which may be taken, immaterially, either before or after noon. The calculation is a little longer than that of latitude deduced from meridian observation; but the observation is easier and more reliable, the greatest advantage being that one has usually from twenty minutes to forty minutes during which it is possible to take it, instead of being obliged to seize a precise moment, when, as likely as not, the sun may be covered by a cloud.

On days when we were halted I have sometimes taken a single circummeridian altitude, but on these occasions it was imperative to know exactly the error of the watch, and for that reason to take the observation either two hours before or two hours after midday. From all points of view this method is inferior to the other. Finally, I often employed the pole star, obtaining the true value by some heavenly body immediately before my observation.

All my altitudes have been invariably observed in the following manner:—Set the telescope so that the sun shall be either a little above or below the observing wires; then begin to count, taking the time when the sun's disc is tangent to the first thread; observe successively the time of passing the seven threads of the eye-piece; read upper and lower vernier: this reading is that which corresponds to the mean of the times noted. If the observation has been made with the telescope on the right, repeat with it on the left, and take the mean. Every altitude thus obtained corresponds in reality to the mean of a series of 7. Those which differ from the mean, and which therefore are useless, can be struck out. When obliged to count for myself, I thought it enough to observe the passage at the 1st, 4th, and 7th threads.

The latitudes obtained by the theodolite may be considered as, approximately, exact to $30''$ or $45''$; those of Ssumao, Manhao, Mongtse, etc., being the mean of two or three groups of observations, exact to $15''$ or $30''$. Similarly, those obtained by the sextant are to be regarded as approximately exact to $1'$ to $1' 30''$. Both at Tali-fou and at Ssumao I was able to compare my results with those of Francis Garnier, and the discrepancy in neither case amounted to $1'$.



Latitudes Nos. 7 and 10 were deduced from Nos. 6 and 9 by the subjoined method, common enough in mountainous countries:—

Let C B be two points, visible to each other, the latitude of B being ascertained by observation, and its altitude known by barometric readings. The next day being at C, and the state of the atmosphere precluding observation, the latitude of C may be deduced from fixing its position relatively to B.

For this purpose observe the altitude of C, and take by theodolite the inclination of the slope CB:

Let H = altitude of B
and let H' = altitude of C,
then in the triangle ABC
 $AB = AC \cot a = (H' - H) \cot a.$

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The result of this calculation gives the horizontal projection, that is to say, the distance on the map, and hence the latitude of C. It is enough that the difference of position of the two points should be sufficient to prevent any slight intermediate barometric change producing more than an insignificant effect on AB. In cases 7 and 10 these differences were considerable, amounting to 3,136 feet and 1,394 feet respectively.

II. DECLINATIONS

The declinations were obtained with the compass-theodolite with additional piece. Previous observations of the sun had given its azimuth, and consequently the true north. The mean of forty readings of the needle (5 point south; 5 point north; needle above, telescope on the right; *id.*, needle above, telescope on the left; *id.*, needle below, telescope on the right; *id.*, needle below, telescope on the left) gave the magnetic north. The declinations of Tali-Fou and Ssumao were obtained by eighty readings, forty with each of my two needles. Their error was from 30" to 1'.

Numerical Order.	Date.	Name and Position of Place of Observation.	Magnetic Declination.
1	11 October 1894	<i>Pnompenh</i> (Cambodia), Residency garden . . .	1° 30' 50" E.
2	23 " "	<i>Battambang</i> (Siam), court of the mission . . .	1° 16' 10" E.
3	3 February 1895	<i>Lang Nhu</i> (between Baoha and Pho-lu, Red River, Upper Tonkin) . . .	1° 23' 15" E.
4	11 " "	<i>Manhao</i> (Red River, Yünnan). . .	1° 23' 30" E.
5	22 " "	<i>Mongtse</i> (Yünnan), court of French Consulate . . .	1° 18' 40" E.
6	8 March "	<i>Tamatolo</i> (Yünnan). . .	1° 08' 40" E.
7	8 April "	<i>Ssumao</i> (Yünnan), 1093 yards south, 18½ m. east of the inn Ou-Shing-Hao . . .	1° 38' 40" E.
8	19 " "	<i>Ta-Chui-Chong</i> , between Tian-pi on the Mekong and Dayakeu (Yünnan) . . .	1° 42' 10" E.
9	29 " "	<i>Mong-Ka</i> (Yünnan) . . .	1° 47' 40" E.
10	13 May "	<i>Tcheya</i> (Yünnan), route from Mienning to Yün-chou .	1° 45' 30" E.
11	23 " "	<i>Tsa-Fu-Sé</i> , road from Chunning-fou to Meng-Huating (Yünnan) . . .	1° 36' 55" E.
12	29 " "	<i>Tali-Fou</i> , court of mission (Yünnan) . . .	1° 38' 30" E.
13	25 June "	<i>Tche-lo-Tsen</i> (Yünnan) . . .	1° 47' 30" E.
14	17 July "	<i>Hekipa</i> , above the right bank of the Mekong (Yünnan) .	1° 57' 30" E.

As was to be expected, the N.-E. declinations increased almost steadily in proportion as we advanced in a north-westerly direction. It was only near Muong-le (Chinese Laos) that minerals were in sufficient evidence to falsify completely the indications of the needle. There I found three declinations so

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utterly at variance with each other and with the probable result, that I was obliged to reject them altogether. On every other occasion constant verifications admitted of my placing entire reliance upon the readings of the compass.

Being actually the first traveller in Yünnan to take precise declinations (Francis Garnier had no theodolite), I had no data for a comparison with the annual increase or decrease of magnetic intensity in that country. It is to be hoped that future observations made at the same points for several years may supply what is desirable.

My instruments having been stolen at the end of July by the Lamasjen, my astronomical observations ceased from that date.

III. LONGITUDES

Numerical Order.	Date.	Place of Observation.	Longitude (E. of Paris).
1	2 April 1895	<i>Impoutsin</i> (route from Muong-le to Ssumao)	99° 24'
2	6 ,,, ,,	<i>Ssumao</i> (court of the inn Ou-Shing-Hao)	98° 47' 30"
3	27 ,,, ,,	<i>Mang-Kai</i> (route from Mong-Pan to Mong-Ka)	98° 4'
4	30 May ,,, ,,	<i>Tali-Fou</i> (court of the Catholic Mission)	97° 59'
5	25 June ,,, ,,	<i>Pagoda Pentchou-Miao</i> , near Tche-lo-tsen (route from Yunlong-Chou to the Mekong)	
6	26 ,,, ,,	<i>Fey-Long-Kiao</i> (on the bank of the Mekong)	97° 14' 97° 6'

The longitude of Fey-Long-Kiao was the last observed, owing, as above, to the loss of my theodolite.

Instrument and Method Employed.—The foregoing longitudes were obtained by the use of the small Hurlmann theodolite graduated to 1'. For their determination I used the method of equal altitudes of moon and stars ably set forth by M. Caspari, ingénieur hydrographe de la marine, in the second part of his *Cours d'astronomie pratique* (Paris, Gauthier-Villars, p. 155). The principle of this system is essentially the same as that of the method of lunar altitudes; but errors of refraction, reading, and graduation are allowed for in the following manner:—

Fix the telescope of the theodolite at a certain height, which it is not necessary to know exactly. Choose a star, for purposes of comparison, as near as possible to the moon's trajectory, and note the time at which the foremost of the two bodies, in the direction of the diurnal motion, passes beneath the horizontal thread. Then displacing the telescope in azimuth, without altering its height, await the transit of the second body, and again note the time. At each of such junctures observe the level, to check the stability or variations of inclination of the axis of the telescope.

As shown by the formulæ of M. Caspari, the refractions, which owing to the proximity of the two bodies may be considered as identical, do not appear in the calculation; the absolute altitudes being immaterial, the errors of graduation are removed; and it is enough to observe one side of the axis only, whether with the telescope on the right or on the left. Immediately before or after, the local time should be ascertained.

In the case where the two bodies are near meridian passage, the observations

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of azimuth may be substituted for those of altitude. The former was the method adopted in determining the longitude of Ssumao.

This proceeding is, on the whole, the best that can be followed in exploration, next to that of occultations, which necessitate the carrying of a powerful telescope. It is superior to those of lunar altitudes and lunar distances by the sextant, as the value of the latter depends upon taking several series east and west to eliminate the error of centring. Nevertheless, it must be borne in mind that every error of observation being multiplied by thirty in the result, an approximation only of from 7' to 10' can be counted on with the small theodolite at my disposal. With a large theodolite repeater M. Caspari was able to obtain an approximation of 2', but such a result can only be regarded as exceptional.

This want of precision being recognised, I was unable to bring to bear the same exactness of correction on my longitudes as on my latitudes. I can, however, affirm that each point entered in the foregoing list lies within a settled zone of between 15' and 20' in breadth. It is important, while bearing in mind the vast tracts of wholly unexplored country involved, to admit a certain, even if exaggerated, margin for error. This importance naturally decreases in proportion as the divergence in the observations diminishes, and disappears if it is a matter of correcting a march of a few days only.

By a systematic comparison of my estimated with my observed latitudes, I can show the amount of reliance to be placed on my reckoning. In a period of travel extending over two months the error never amounted to more than between 7' and 10'. As Francis Garnier based all his longitudes on observations of lunar distances with the sextant, their approximation is not closer. For the positions of Tali and Ssumao, the two fundamental points of my map, through which places he also passed, I have therefore judged it the most reasonable process to take the mean between our respective observed longitudes, using my value for error in the estimated longitudes.

From all which deliberations I am in a position to assume that the error in the longitudes of my map does not exceed 4' to 5'—at any rate as far as Tali-Fou. After the loss of my theodolite I had to rely on my estimation; yet, on comparing my journey with that of Captain Gill to Atentsé, and with the geodesic survey of India, I was able on arrival in Assam to check my calculations, and to correct the intermediate points in proportion. When we reached Khamti, after three months' travel through the most arduous country, I was only 6' out in latitude and 5' in longitude from the position laid down by Colonel Woodthorpe. Such a result, which I confess surpassed my expectations, shows how accurate the method of estimation can be made with great care and some experience. I should add that during those three months I was able to look back from each summit to others which I had passed a week or a fortnight previously, and thus had several opportunities of checking my results.

I had carried with me two of those chronometers (Leroy) known in the navy under the name of torpedo-boat watches, but I soon gave up using them. I found that in a rough and difficult country, where falls, immersions, and all manner of accidents were of constant occurrence, it was next to impossible to preserve watches from sudden shocks. Further, we daily experienced changes in temperature of as much as 20°, which disturbed their rate of going, while the practical impossibility of making sufficiently long and frequent halts to regulate them, quickly convinced me of the futility of attempting to determine longitude by the passage of time.

As for occultations, I confess that I had not a single opportunity of observing one under favourable conditions. My telescope was not of sufficient power to allow me to observe clearly the occultations of stars of the fifth and seventh magnitude, nor did the atmospheric state ever admit a chance of observing those of the first magnitude, which, as is well known, is sufficiently rare elsewhere.

FROM TONKIN TO INDIA

IV. ALTITUDES

Dates.	Places of Observation.	Barometer Corrected.	Temperature (Fahr.) at Time of Observation.	At same Date.		Latitudes.	Altitudes.
				Barometer Mean at Hong-Kong.	Temperature (Fahr.) Mean at Hong-Kong.		
1895.							Feet.
7 Feb.	Bac - Sat (Tonkin), Red River	29.64	64°.40	30.03	57°.20	22°	368
" "	Long - Pô (China - Tonkin frontier), Red River	29.56	68°	"	"	23°	444
" "	<i>Manhao</i>	29.48	71°.60	"	"	"	516
18 "	<i>Mongtse</i>	25.70	"	30.11	66°.20	"	4,509
27 "	Highest point of col on route, Mongtse to Long-choui-tieou	24.05	48°.20	"	69°.80	"	6,273
28 "	Long-choui-tieou	24.64	57°.20	"	"	"	5,676
" "	Highest point on route, Long - choui - tieou to Choui - Tien (summit of the Cone Chain)	24.13	55°.40	"	"	"	6,227
" "	Choui-Tien	25.82	66°.20	"	"	"	4,371
3 March	<i>Sha-ha-te</i>	25.27	57°.20	30.19	59°	"	4,950
4 "	Passage of the Mafong Ho	27.00	"	"	62°.60	"	3,120
" "	Col of chain between the Mafong Ho and the Chilipo Ho	25.31	60°.80	"	"	"	4,946
" "	<i>Fong Chen Lin</i>	25.94	57°.20	30.00	"	"	4,058
5 "	Highest point of col on route, Fong Chen Lin to Sin-Ka	24.01	68°	"	"	"	6,290
" "	Col near Sin-Ka	24.68	60°.80	"	"	"	5,490
6 "	Ouong-chou-pe	23.66	62°.60	"	"	"	6,672
7 "	Bottom of valley of the Yang-si Ho	26.25	82°	29.92	68°	"	3,765
" "	Highest point on route, Pou-ka to Tamatolo	25.11	68°	"	"	"	5,059
9 "	Bank of Red River near Ou-pang	28.93	91°	30.00	66°.20	"	1,047
" "	Sintchâi	26.41	68°	"	"	"	3,367
10 "	Ou-mou (banks of the Ou-long Ho)	28.89	82°	29.92	64°.40	"	1,063
" "	Pin-ngantchâi (banks of the Ou-long Ho)	28.70	73°.40	"	"	"	987

APPENDIX A

Dates.	Places of Observation.	Barometer Corrected.	At same Date.				Altitudes. Feet.
			Temperature (Fahr.) at Time of Observation.	Barometer Mean at Hong-Kong.	Temperature (Fahr.) Mean at Hong-Kong.		
1895.							
11 March	Col crossing chain between the Ou-long Ho and the Red River . . .	26.81	95°	30.00	66°.20	23°	3,278
" "	Banks of the Red River near Lou-ping . . .	28.77	91°	"	"	"	1,204
12 "	Col between Maïcheu and Toute	28.03	80°.60	29.84	69°.80	"	1,978
13 "	Isa	26.37	78°.80	29.80	75°.20	"	3,581
14 "	Souto	25.00	78°.80	29.80	"	"	5,088
15 "	Long-ti	24.09	68°	29.88	69°.80	"	6,095
16 "	Col above Long-ti (route from Tchimpou) . . .	23.38	"	30.11	60°.80	"	6,942
" "	Tayang-Ka	24.80	71°.60	"	"	"	5,497
17 "	Highest point on route, Tayang-ka to Tchekou .	23.58	46°.40	30.27	50°	"	6,733
" "	Tchekou	24.25	"	"	"	"	6,053
18 "	Col crossing chain of separa- tion between the Red River and the Nam-na .	23.38	52°	30.23	53°.60	"	7,073
" "	Banks of the Nam-na . . .	24.80	71°.60	"	"	"	5,569
19 "	Chain separating the Nam- na from the Ni-lung Ho .	23.70	47°	30.19	64°.40	"	6,666
" "	Passage of the Ni-lung Ho	25.31	68°	"	"	"	4,957
20 "	Col in the chain dividing the Ni-lung Ho from the La-ka Ho	23.11	57°.20	30.15	66°.20	"	7,445
" "	Passage of the La-ka Ho .	25.98	68°	"	"	"	4,226
22 "	Col between the La-ka Ho and the Laniou Ho . . .	24.96	64°.40	30.11	60°.80	"	5,278
" "	Passage of the Laniou Ho .	26.73	"	"	"	"	3,354
" "	Col between the Laniou Ho and the Pa-san Ho . . .	24.21	62°.60	"	"	"	6,125
24 "	Passage of the Pa-san Ho	26.41	78°.80	29.88	68°	"	3,541
25 "	Col between the Pa-san Ho and the Lysien Kiang (Black River)	25.94	80°.60	29.92	69°.80	22	4,114
" "	Passage of the Black River .	28.03	89°.60	"	"	"	1,890
26 "	Tian-si	25.43	75°.20	29.88	"	"	4,624

FROM TONKIN TO INDIA

Dates.	Places of Observation.	Barometer Corrected.	Temperature (Fahr.) at Time of Observation.	At same Date.		Latitudes.	Altitudes.
				Barometer Mean at Hong-Kong.	Temperature (Fahr.) Mean at Hong-Kong.		
1895.							
27 March	Col between Tian-si and the Mote Ho, large affluent of Black River . . .	24.48	75°.20	29.88	73°.40	22°	5,734
" "	Passage of the Mote Ho . . .	26.10	68°	,"	,"	,"	3,867
28 "	<i>Muong-Le</i> . . .	26.25	75°.20	30.07	57°.20	,"	3,845
30 "	Col between Muong-Le and Pi ma tchai . . .	25.70	60°	30.19	68°	,"	4,486
" "	Passage of the Mote Ho or Mong-ie-tsin Ho . . .	27.12	75°.20	,"	,"	,"	3,944
1 April	Ta-chai (banks of the Men-ling Ho) . . .	26.22	69°	30.07	,"	,"	3,902
2 "	Col crossing the chain dividing the basins of the Red River and the Mekong .	25.39	77°	30.00	71°.60	23°	4,799
" "	Highest point on route Im-poutsin to Kale . . .	24.21	64°.40	,"	,"	,"	6,096
3 "	Near Chen-Lao (passage of the Cheun-long Ho) . . .	26.69	80°.60	29.96	73°.40	,"	3,544
5 "	Col between the Cheun-long Ho and the Man-lo Kiang	24.96	86°	29.80	75°.20	,"	3,867
6 "	<i>Ssumao</i> . . .	25.59	84°.20	29.92	78°.80	,"	4,568
11 "	Undulating plateau near Tchin-oue (mean altitude)	,"	73°.40	30.11	69°.80	,"	4,667
13 "	Passage of the Lan-gan Ho	26.57	82°.40	,"	73°.40	,"	3,630
14 "	Breach in Talo Mts. . .	25.39	78°.80	30.00	75°.20	,"	4,825
15 "	<i>Long-Tang</i> . . .	26.37	,"	29.92	71°.60	,"	3,633
16 "	Col between Long-Tang and the Long-Tang Ho . . .	26.06	84°.20	,"	77°	,"	4,025
" "	Col between the Long-Tang Ho and the Tiou-fan Ho	25.27	82°.40	,"	,"	,"	4,911
17 "	Col between the Tiou-fan Ho and the Mekong . . .	25.03	81°	,"	80°.60	,"	5,197
18 "	Bank of the Mekong at Tian-pi . . .	27.55	75°.20	29.96	77°	,"	2,419
" "	Ta Choui-chong . . .	24.33	80°.60	30.00	,"	,"	4,706
19 "	Lapatchin . . .	26.33	73°.40	29.96	,"	24°	3,685
23 "	Passage of the Heu Ho . . .	27.48	78°	29.88	,"	,"	2,441
" "	Lalichin . . .	25.47	82°.40	,"	,"	,"	4,648
" "	Col between Lalichin and Meng-pou . . .	24.40	78°.80	,"	,"	,"	5,405

APPENDIX A

Dates.	Places of Observation.	Barometer Corrected.	Temperature (Fahr.) at Time of Observation.	At same Date.		Latitudes.	Altitudes.
				Barometer Mean at Hong-Kong.	Temperature (Fahr.) Mean at Hong-Kong.		
1895.							
23 April	<i>Meng-Pou</i> . . .	25.19	77°	29.88	77°	24°	4,937
24 "	Col between Meng-pou and Chouen-lo . . .	24.21	"	"	71°.60	"	6,059
25 "	Col between Chouen-lo and the Mekong . . .	24.17	"	"	68°	"	6,085
" "	Bank of the Mekong near Nampe . . .	27.44	80°.60	"	"	"	2,454
26 "	Col whence the plain of Mong-Pan came in view .	25.27	71°.60	29.92	73°.40	"	4,838
" "	<i>Mong-Pan</i> . . .	25.98	75°.20	"	"	"	4,060
27 "	Col between Mong-Pan and the Lan Kiou Ho . . .	24.96	78°.80	29.96	"	"	5,273
" "	Passage of the Lan Kiou Ho . . .	25.59	"	"	"	"	4,555
" "	Col between the Lan Kiou Ho and Mang Kai . . .	24.60	77°	"	"	"	5,520
28 "	Summit of plateau between Mang Kai and Mong-Ka	24.72	76°	29.80	78°.80	"	5,411
" "	<i>Mong-Ka</i> . . .	26.33	80°.60	"	"	"	3,597
30 "	Col between Mong-Ka and the Mekong . . .	23.38	73°.40	29.92	80°.60	"	6,543
1 May	Bank of the Mekong at Tapong . . .	27.36	78°.80	"	"	"	2,603
" "	Col between the Mekong and the Latung Ho . . .	24.33	72°	"	"	"	5,760
" "	First passage of the Latung Ho near Latung . . .	25.55	73°.40	"	"	"	4,571
2 "	Touko . . .	24.40	75°.20	29.88	"	"	5,869
" "	Col between Touko and Pochan . . .	23.34	77°	"	"	"	7,172
" "	<i>Pochan</i> . . .	24.29	"	"	"	"	6,020
25 April	Chouen-lo . . .	25.86	"	"	68°	"	4,137
" "	Passage of the Tatchio-tou Ho . . .	24.88	80°.60	"	"	"	5,242
" "	Col between the Tatchio-tou Ho and Tachin . . .	24.52	"	"	"	"	5,692
26 "	Col between Tachin and Tiou-pou-fang . . .	23.38	73°.40	29.92	73°.40	"	7,086
28 "	Passage of the Sekiang near the Mekong . . .	23.42	78°.80	29.80	78°.80	"	2,496

FROM TONKIN TO INDIA

Dates.	Places of Observation.	Barometer Corrected.	Temperature (Fahr.) at Time of Observation.	At same Date.		Latitudes,	Altitudes.
				Barometer Mean at Amoy.	Temperature (Fahr.) Mean at Amoy.		
1895.							
29 April	Col between the Sekiang and the Tchen-chi Ho . . .	23.50	78°.80	29.88	75°.20	24°	6,952
30 "	Tamano . . .	24.17	73°.40	29.92	80°.60	"	6,178
1 May	Col between Tamano and the district of Linguen . . .	23.07	"	"	"	"	7,531
" "	Passage of the Linguen Ho	24.56	78°.80	"	"	"	5,740
3 "	Mienning . . .	25.07	77°	30.00	"	"	5,207
7 "	Col crossing the chain of separation between the Salwen and Mekong basins . . .	22.79	70°	29.84	"	"	7,776
8 "	Col crossing the great chain directly overhanging the Mekong . . .	22.40	62°.60	29.92	77°	25°	8,262
9 "	Pan-tong-ka . . .	25.31	75°.20	29.88	78°.80	"	4,803
10 "	Ta-cheu-tou-kai . . .	24.68	71°.60	"	75°.20	"	5,565
11 "	Manto (banks of the Mong-ma Ho) . . .	24.88	73°.40	29.96	71°.60	"	5,445
12 "	Tcheya (banks of the Mong-ma Ho) . . .	24.60	"	29.80	80°.60	"	5,549
14 "	Col between the sources of the Mong-ma Ho and Yünchou . . .	23.03	82°.40	"	"	"	7,531
15 "	Yünchou . . .	26.10	84°.20	"	"	"	3,834
16 "	Lotan . . .	25.07	80°.60	29.71	"	"	4,957
17 "	Chunning-Fou . . .	24.48	77°	29.64	86°	"	5,584
18 "	Col crossing chain whence the Pe Hsiao Ho descends . . .	22.71	62°.60	29.92	71°.60	"	7,818
20 "	Bank of the Mekong (bridge of the Tilung Kiang) . . .	26.37	78°.80	29.88	73°.40	"	3,604
" "	Col crossing the chain which bounds the Mekong on the N. . .	22.00	62°.60	"	"	"	8,688
21 "	Mon-tian-cho . . .	25.55	78°.80	29.76	80°.60	"	4,443
23 "	Col in the chain on left flank of the Yang-pi-kiang . . .	23.18	80°.60	29.92	68°	"	7,340
" "	Passage of the Kou-lo Ho . . .	24.60	66°.20	"	"	"	5,549
24 "	Col in the chain above the plain of Meng-hua-ting . . .	22.44	"	"	"	"	8,294

APPENDIX A

Dates.	Places of Observation.	Barometer Corrected.	Temperature (Fahr.) at Time of Observation.			At same Date.		Latitudes,	Altitudes,
				Barometer Mean at Amoy.	Temperature (Fahr.) Mean at Amoy.				
1895.									
25 May	Ta Chang (plain of Mēng-hua)	24.09	78°.80	29.76	69°.80	25°	6,087		
26 "	Col separating plains of Mēng-hua and Tali-Fou	21.88	57°.20	29.60	78°.80	"	8,589		
27 "	Tali-Fou	23.34	69°.80	29.80	75°.20	"	7,007		
18 June	Col between Tēng-chouan-cheou and Fong-Yu	21.81	68°	29.88	89°.60	"	9,150		
19 "	Col between Fong-Yu and Kiang-pin	20.59	59°	29.76	86°	"	10,556		
21 "	Kiang-pin	23.54	75°.20	29.80	86°	26°	6,784		
" "	Col between the Yang-pi and Kouang-pin	21.41	62°.60	"	"	"	9,447		
22 "	Col between Kouang-pin and the Pi-kiang	22.08	68°	29.80	82°.40	"	8,607		
23 "	Yün Long Cheou	24.64	80°.60	29.71	87°.80	"	5,504		
25 "	Col between Yün Long Cheou and the Mekong	21.41	59°	29.52	86°	"	9,213		
" "	Bank of the Mekong at Fey-long-kiao	25.66	75°.20	"	"	"	4,082		
27 "	Col in the chain of separation between the Mekong and Salwen basins	20.98	55°.40	29.71	84°.20	"	9,937		
30 "	Bank of the Salwen at Loukou Lotsolo	26.77	84°.20	29.56	89°.60	"	2,872		
8 July	Lotsolo	24.01	71°.60	29.80	82°.40	"	6,250		
12 "	Col in the chain of separation between the Mekong and Salwen basins	19.21	66°.20	29.76	86°	"	11,823		
14 "	Bank of the Mekong at Piaotsen	25.31	68°	"	89°.60	"	4,703		
15 "	Tonô	24.88	77°	29.71	87°.80	"	5,216		

FROM TONKIN TO INDIA

Dates.	Places of Observation.	Barometer Corrected.	Temperature (Fahr.) at Time of Observation.	At same Date.		Latitudes.	Altitudes.
				Barometer Mean at Amoy or Shanghai.	Temperature (Fahr.) Mean at Amoy or Shanghai.		
1895.							
17 July	Hekipa	22.75	77°	29.68	87°.80	26°	7,821
18 "	Tatsasu	25.00	82°.40	"	"	"	5,054
23 "	Ta Hsiao Chouan	23.58	78°.80	29.64	82°.40	"	6,672
24 "	Tsiten	21.65	75°.20	29.68	84°.20	"	8,818
25 "	Keuntinkien	22.51	77°	29.84	86°	"	8,225
26 "	Feoutsen	23.50	82°.40	29.80	84°.20	"	6,961
28 "	Tié Ho	23.70	69°.80	29.71	87°.80	"	6,575
30 "	In Chouan	23.22	77°	29.88	86°	27°	7,348
31 "	Sin-tchan-pin	23.74	84°.20	"	"	"	6,698
1 Aug.	Toti	23.54	75°.20	29.88	87°.80	"	6,926
2 "	Tolo	23.97	78°.80	29.84	82°.40	"	6,382
5 "	Bank of the Mekong near Sianpin-chouan	24.64	77°	29.68	89°.60	"	5,456
7 "	Lameti	23.97	80°.60	29.71	86°	"	6,301
8 "	Lometi	24.52	73°.40	29.68	"	"	5,552
9 "	Loza	23.50	75°.20	29.60	87°.80	"	6,740
12 "	Lo Kieou(banks of Mekong)	24.29	78°.80	29.80	78°.80	"	5,941
17 "	Banks of the Mekong near Gocha	24.17	84°.20	29.76	80°.60	"	6,100
" "	Dekou	24.05	69°.80	"	82°.40	"	6,155
20 "	Tsekou	23.85	80°.60	29.84	86°	28°	6,559
24 "	Gotra	23.46	75°.20	29.64	84°.20	"	6,801
26 "	Kiuchu	20.90	62°.60	29.80	78°.80	"	10,135
27 "	Atentsé	20.27	51°.80	29.92	86°	"	11,060
28 "	Yan-kan-go	23.07	69°.80	29.88	73°.40	"	7,373
14 Sept.	Col in the chain of separation between the basins of the Mekong and the Salwen (beneath Peak Francis Garnier) . . .	18.89	37°.40	29.96	80°.60	"	12,860

APPENDIX A

Dates.	Places of Observation.	Barometer Corrected.	At same Date.			Altitudes.	
			Temperature (Fahr.) at Time of Observation.	Barometer Mean at Shanghai.	Temperature (Fahr.) Mean at Shanghai.		
1895. 16 Sept.	First passage of the river Donyon	22.55	57°.20	29.92	75°.20	28°	7,998
18 " "	Meuradon (banks of the Donyon)	23.74	66°.20	30.07	73°.40	,"	6,751
19 "	Col between the Donyon and the Salwen	21.92	71°.60	30.11	,"	,"	9,101
20 "	Banks of the Salwen near Tionra	25.11	75°.20	30.15	69°.80	,"	5,193
24 "	Banks of the Salwen at Djewan	"	71°.60	29.92	73°.40	,"	5,019
28 "	Col in the chain separating the Salwen from the Poula Ho	18.93	50°	30.03	71°.60	,"	12,896
29 "	Tamalo	23.42	64°.40	30.00	64°.40	,"	6,886
5 Oct.	Col in the Mongon-ko chain	19.96	51°.80	Barometric and Thermometric Mean for the Month of October at Amoy.			8,341
" "	Banks of the Seke Lon	21.69	"	Do. for the Month of October at Amoy.			9,295
7 "	Col in the chain of separa- tion between the basins of the Salwen and the Irawadi	19.80	46°.40	29.96	77°	,"	8,406
9 "	Toulong	24.92	68°			,"	5,401
13 "	First passage of the Kiou- kiang or Tourong	25.62	64°.40			,"	4,460
16 "	Deidoum	24.29	69°.80			,"	6,027
19 "	Banks of the Kiou-kiang near the confluence of the Laonatsi	26.25	62°.60			,"	3,762
21 "	Highest point on route from Deidoum to Tukiu Mu	20.94	53°.60			,"	10,121
22 "	Passage of the river Tetchen	25.00	59°			,"	5,114
30 "	Col between Tukiu Mu and Mandoum	25.59	66°.20			,"	4,512
" "	Passage of the river Dublu at its confluence with the river Telo	26.96	53°.60	Do. for the Month of November.		,"	2,972
2 Nov.	Col in the chain separating the river Telo from the river Reunnam (Sinbinti)	22.47	57°.20	30.03	68°	,"	8,146
5 "	Confluence of the Wan-ou and the Reunnam	28.07	68°			,"	1,909

FROM TONKIN TO INDIA

Dates.	Places of Observation.	Barometer Corrected.	Temperature (Fahr.) at Time of Observation.	Barometric and Thermometric Mean for the Month of November at Amoy.	Latitudes.	Altitudes.
1895. 8 Nov.	Col between the Reunnam and the Tsan (Dzôn Redzi)	22.47	57°.20			Feet.
10 "	Banks of the Tsan	28.11	,"		28°	8,146
16 "	Col in the Leket chain between the rivers Tsan and Nam Kiou	24.96	73°.40		,"	1,867
19 "	Passage of the Nam Kiou	28.81	,"		27°	5,178
20 "	Khamti	"	"		,"	1,185
26 "	Col in the chain separating the basins of the Nam Kiou and the Nam Lang	25.55	57°.20			4,545
29 "	Passage of the Nam Lang	27.79	55°.40			2,179
1 Dec.	Col Nam Tsaï Boum	23.85	57°.20			6,487
2 "	Col between the Ouëpoukot and the Nam Phungan	23.30	53°.60			7,063
3 "	Bank of the Nam Phungan	25.78	51°.80			4,278
8 "	Col of the Phungan Boum	20.94	37°.40	30.11 59°		9,888
9 "	Bank of the Nam Dapha	24.72	44°.60			5,421
11 "	Summit of the chain of separation between the Dihing and the Dapha	21.57	42°.80			9,150
13 "	First passage of the Nam Dihing	28.18	60°.80			1,849
17 "	Daphagang	28.34	66°.20			1,701

I. In column 1 are given the corrected barometric pressures with allowance for tide and for the error of the aneroid. The latter was obtained from hypsometric observations taken at least once a week and oftener in all important places. My two hypsometers were supplied by Baudin, and their slight zero error was measured at the start and verified at the finish. To guard against sudden variations in the aneroids, such as might be caused by a blow, I nearly always had two about me, and took simultaneous readings for every altitude. Thanks to these constant comparisons, I can vouch for the exactness of the corrected pressures to within .05905 of an inch.

APPENDIX A

At Ssumao, Tali-Fou, and Atentsé I was able to compare my altitudes with those given by other travellers, with the subjoined satisfactory result:—

	Feet.	Feet.
Ssumao	4,568	. . . . 4,542 (Francis Garnier).
Tali-Fou	7,007	. . . . { 6,978 (Francis Garnier). 7,070 (Baber).
Atentsé	11,060	. . . . 11,000 (Captain Gill).

II. Column 2 gives the temperature at the moment of the observation, taken with a sling thermometer of Baudin's.

III. Columns 3 and 4 contain the mean barometric pressure and temperature at sea-level on the same date as the observation. I selected Hong-Kong, Amoy, and Shanghai for base, according as our route lay nearest to their respective latitudes. The readings were kindly furnished by M. Bourgeois, chancellor of the French Consulate at Hong-Kong, who caused the daily meteorological bulletins of the coast of China from February to October to be forwarded to Paris; after 1st October I received only the monthly mean.

IV. In column 5 will be found the degree of latitude nearest to the place of observation which enters into the calculations for the correction of temperature.

V. Lastly, column 6 gives the altitudes calculated after the Radau Tables based on the formula of Laplace. The readings at the point of observation enter simultaneously into the calculation with the corresponding ones under the same parallel by the seashore. They are not laid down as correct to a foot, because one cannot be sure of the local variations in pressure being identical at Hong-Kong and in Yünnan; but, speaking generally, the monthly changes follow the same laws of increase and decrease,—maximum pressure in January, minimum in July,—the amplitude reaching the mean figure of .59055 inch, about 492 feet. Besides that this is the method most universally employed by travellers, it must be owned that one has no better base at one's disposal for disengaging the absolute altitude from the observed pressure. The process of calculation being clearly set forth in the preface to the Radau Tables (Paris, Gauthier-Villars), I abstain from reproducing it here.

PARIS, 17th June 1896.

V. REMARKS ON THE METHODS USED FOR FIXING THE PRINCIPAL POSITIONS ON THE MAP

1. MANHAO (point of departure)

Latitude = $23^{\circ} 00' 30''$ N. Astronomical observations.

Longitude = $105^{\circ} 54'$ E. Following the map of the staff, 1/200,000, published by the Topographic Service of Hanoi (page Mongtse), showing the labours of the Frontier Delimitation Commission.

2. SSUMAO

Latitude = $22^{\circ} 46' 30''$ N. Astronomical observations.

Longitude = $98^{\circ} 42' 30''$ E. This longitude is the mean of the three following:—

- (1) That given by my estimated distance: $98^{\circ} 37'$.
- (2) That given by my astronomical observations: $98^{\circ} 47' 30''$.
- (3) That given by Francis Garnier's observations: $98^{\circ} 43'$.

(For the advantage of this mode of adoption, see the observations at the end of the list of longitudes, *supra*.)

FROM TONKIN TO INDIA

3. TALI-FOU

Latitude = $25^{\circ} 42' 30''$ N. Astronomical observations.

Longitude = $98^{\circ} 3' 45''$ E. This longitude is the mean of the three following :—

(1) That given by my estimated distance, taking Ssumao as point of departure : $98^{\circ} 4' 30''$.

(2) That given by my astronomical observations : $97^{\circ} 59'$.

(3) That given by Francis Garnier's observations : $97^{\circ} 8'$.

4. ATENTSÉ

(No astronomical observations owing to theft of instruments.)

Latitude = $28^{\circ} 28'$ N. This latitude is the mean between—

(1) My estimated latitude : $28^{\circ} 29'$.

(2) Latitude on Gill's map *corrected* : $28^{\circ} 27'$.

In his map Captain Gill makes $28^{\circ} 23'$ the latitude of Atentsé. But as he did not take astronomical observations, I am of opinion that this should be altered 4', for the following considerations: He places Batang on his map at latitude $29^{\circ} 53' 50''$, whereas its real latitude, observed with the sextant by Father Desgodins, is $30^{\circ} 00'$; his latitude of Tali, on the other hand, is identical with that given by Garnier and verified by myself. There is thus an error of $6' 10''$ on the Batang-Tali length, and by interpolation (Batang, Atentsé, and Tali being practically on the same line) an error of 4' on the Atentsé-Tali length; the real latitude of Gill ought therefore to be considered as 4' more N., which gives $28^{\circ} 27'$. That adopted by General Walker in his map of Thibet is $28^{\circ} 30'$.

Longitude = $97^{\circ} 00'$ E., being the mean between—

(1) My longitude estimated starting from position adopted for Tali : $97^{\circ} 00'$.

(2) The longitude adopted by General Walker in his map of Thibet

(July 1894) : $97^{\circ} 00'$.

Which, as is seen, happen exactly to coincide.

5. KHAMTI (Padao, capital of the country)

Latitude = $27^{\circ} 22' 30''$ N. Observed by Colonel Woodthorpe. (My own latitude, estimated after two months and a half without any guiding marks, was $27^{\circ} 28' 30''$, or only 6' difference. The most recent maps of Assam place Khamti in $27^{\circ} 24'$ N. latitude. But I have thought it better to maintain that of Col. Woodthorpe.)

Longitude = $97^{\circ} 30' 45''$ E. of Greenwich, or $97^{\circ} 31' (95^{\circ} 11' \text{ E. of Paris})$. I have adopted this figure from the following considerations :—

Between Khamti and Daphagang (point of arrival on my map, close to the confluence of the Dihing and the Dapha, which appears in the geodesic survey of the positions in Assam) the distance estimated by Col. Woodthorpe is . . . $55' 35''$
According to my own estimation this same distance should be . . . $1^{\circ} 00' 35''$

Mean . . . $58' 05''$

By carrying this mean difference to the east of Daphagang ($96^{\circ} 32' 40''$) I obtain $97^{\circ} 30' 45''$, the longitude adopted.

(On arrival at Khamti after two and a half months' march, my estimated longitude was $97^{\circ} 33' 15''$ E. of Greenwich, while that of Col. Woodthorpe, starting from Assam, was $97^{\circ} 28' 15''$; or only 5' difference at the point of coincidence on a total route of $3^{\circ} 30'$ in longitude.)

6. DAPHAGANG (point of arrival)

Latitude = $27^{\circ} 29' 10''$ N.

Longitude = $96^{\circ} 32' 40''$ E. (Greenwich). Following Col. Woodthorpe and the maps of Assam.

APPENDIX A

METEOROLOGICAL TABLES AND DAILY LOG

OF

M. ÉMILE ROUX

ENSEIGNE DE VAISSEAU

PART I. TONKIN TO TALI-FOU

Date.	Place of Observation.	Thermometer (Fahr.).		Wind.		Weather.	Remarks.
		Max. ¹	Min. ¹	Direction.	Force. ²		
1895. 7 Feb.	Bac-Sat (Red R. Tonkin)			S.E.	2	Overcast.	Junk on Red R. Laokay to Manhao.
8 "	On Red R.	69°	59°	"	3	Very fine; overcast at night.	...
9 "	...	75°	62°	N.E.	2	...	
10 "	Manhao (Yün-nan)	71°	66°	E.	4	Cloudy.	10th to 13th, stay at Manhao.
11 "	...	"	"	S.E.	"	Light clouds.	
12 "	...	77°	64°		0	Very fine.	
13 "	...	82°	66°	E.	2	Overcast at night.	
14 "	Kan-tan-tse	"	51°		0	Very fine.	Manhao to Kan-tan-tse, 2 m. beyond Ho-Teou.
15 "	Sin-chai.	"	50°	S.	2	"	Kan-tan-tse to Sin-chai.
16 "	Mongtse	77°	"	S.E.	3	"	Sin-chai to Mongtse. 16th to 26th, stay at Mongtse.
17 "	...	73°	"	"	4	"	[Obs.—On the plateau of Mongtse the wind blows chiefly from the S. and S.E., weakly in the morning, more strongly at night. Climate in winter very fine and dry. Temperature equable.]
18 "	...	77°	51°	"	3	"	
19 "	...	73°	53°	"	"	"	
20 "	...	75°	"	S.W.	4	Fine.	
21 "	...	"	"	S.E.	2	"	
22 "	...	73°	"	S.	4	"	
23 "	...	75°	"	E.N.E.	"	"	
24 "	...	"	51°		0	"	

¹ Maximum represents highest temperature recorded during day; Minimum shows lowest do., in place where the night was passed, as marked in parallel column against the date.

² The values of the force of the wind are those in use in seacoast and meteorological returns: from 0 (calm) to 10 (hurricane).

FROM TONKIN TO INDIA

Date.	Place of Observation.	Thermometer (Fahr.).		Wind.		Weather.	Remarks.
		Max.	Min.	Direction.	Force.		
1895. 25 Feb.	...	75°	55°	S.	2	Fine.	
26 "	...	73°	53°	S.W.	4	"	
27 "	Long - choui-tieou	,"	50°	S.	3	Cloudy ; heavy showers.	Mongtse to Long-choui-tieou.
28 "	Ho-teou .	,"	57°		0	Very fine.	Long-choui-tieou to Ho-teou.
1 March	Panther Camp	,"	60°		,"	"	Cross Red R. by ferry.
2 "	Lou-tche-hsien	,"	44°	S.W.	3	Fine day. Thick fog at night.	Lou-tche-hsien, a Poula village, 12 miles.
3 "	Sha-ha-te .	,"	46°		0	Fog.	Sha-ha-te, Chinese village, 3 m.
4 "	Fong-chen-lin	,"	50°		,"	"	Chinese village, 15 m.
5 "	Sinka .	,"	"	E.	4	Fog till noon; then fine.	Chinese village, 11 m.
6 "	Ouong-choupe	,"	"	N.W.	3	Fog till 10 a.m.; then fine.	Chinese village, 9 m.
7 "	Tamatolo .	,"	"		0	Very fine.	Chinese village, 7 m.
8 "	...	,"	"		,"	"	Halt at Tamatolo.
9 "	Sin-chaï .	91°	51°	S.E.	4	Burning sky, and wind like sirocco.	T. to S., 7 m. Chinese village.
10 "	Pin-ngan-chai	82°	59°		5	"	P. (Païs or Laotians), 9 m.
11 "	Louping ..	98°	66°		1	Very fine.	P. to L. (Chinese), 15 m.
12 "	Tou-te .	,"	62°		0	Very fine. Lowering ; storm at night.	L. to T. (Chinese), 17 m.
13 "	Isa . .	84°	60°	W.	2	Very fair.	T. to I. (small Chinese town ; about 2000 inhabitants).
14 "	Souto . .	82°	57°		1	"	I. to S. (Chinese), 8 m.
15 "	Long-ti . .	80°	"		0	"	S. to L. (small Chinese town, about 1500 inhab.), 12 m.
16 "	Ta-yang-ka .	75°	46°		,"	"	L. to T. (Chinese), 8 m.
17 "	Tchekou .	51°	50°		,"	Thick fog.	Ta. to Tch. (Lolos), 8 m.
18 "	Lami . .	,"	48°	S.	3	Cold, damp fog.	Teh. to L. (Hou-Nis), 11 m.
19 "	Sou-tchou-sai .	68°	50°		0	Fog.	L. to S. (Chinese), 13 m.
20 "	Malo . .	71°	57°	S.S.W.	2	"	S. to M. (Lolos), 9 m.
21 "	...	68°	59°		1	Stormy, showery.	Halt at M.

APPENDIX A

Date.	Place of Observation.	Thermometer (Fahr.).		Wind.		Weather.	Remarks.
		Max.	Min.	Direction.	Force.		
1895. 22 March	Pitchu . . .	64°	50°	○		Rain.	M. to P. (Hou-Nis), 9½ m. Time, 3 hrs. 47 min. By col above Malo. Across the Laniouho; ford difficult. Across an affluent of the Laniouho.
23 "	Sama . . .	53°		S.	3	Overcast.	P. to S. (Hou-Nis), 9 m.; 3 hrs. By Loko-sai (Chinese hamlet) and Niho (Hou-Ni village).
24 "	Pan-hou-tse . .	86°	57°	○		Very fair.	S. to P. (Hou-Nis), 13½ m.: 4 hrs. By Kampi Yangtse and Loma (Hou-Nis). Cross the Pasan-Ho.
25 "	Li-sian-pou-tou	89°	60°	"		"	P. to S. (two Hou-Ni houses), 9 m.; 3½ hrs. By Katchou (Hou-Nis) and Matran (Hatous). Cross the Black R. (Lysien-kiang) in sampa.
26 "	Tian-si . . .	87°	"	S.W.	2	"	L. to T. (Hou-Nis), 9½ m.; 3½ hrs. By Kou-ta-fan (Hou-Nis) and Yutaipo.
27 "	Mote . . .	84°	"	S.S.W.	"	"	T. to M. (Chinese), 17 m.; 3½ hrs. By Leang-sou-tchai (Hou-Ni). Cross the Lo-ma-ho by ford (affluent of Lysien-kiang, shallow, wide bed, important in rainy season). Over chain between the Lo-ma-Ho and the Mo-te Ho (source of the Mong-ie-tsin Ho, considerable affluent of Lysien-kiang).
28 "	Muong-le . . .	"	55°	"		"	Mo. to Mu. (small Chinese town, about 2000 inhab.), 4¾ m.; 2 hrs. Cross the Mo-te Ho. By Mali-sou-tchai (Chinese) and Patchi (Chinese).
29 "	...	77°	"			"	Halt at Muong-le.

FROM TONKIN TO INDIA

Date.	Place of Observation.	Thermometer (Fahr.).		Wind.		Weather.	Remarks.
		Max.	Min.	Direction.	Force.		
1895. 30 March	Keu-ma-tse .	68°	57°	W.	2	Fair.	M. to K. (Chinese), 11 m.; $3\frac{3}{4}$ hrs. By Pima-tehai (Chinese village). Ford, depth 15 in., over the Mongie-tsim Ho, called here the Mong-ou-kiang. Country little inhabited.
31 ,,	Ta-koue-lin .	71°	60°	○		Fine, hazy.	K. to T. (Pais), 12 m.; $4\frac{1}{4}$ hrs. Ford over the Men-ling Ho, affluent of the Mongie-tsin Ho. By Tsoun-tehai (Pais), followed the Men-ling Ho to Hatien (Pais).
1 April	Ta-tehai .	77°	55°	„	2	Cloudy. Lightning; much hail.	Tak. to Tat. (Chinese), 8 m.; 3 hrs. Up the Men-ling Ho, which crossed several times. By Soun-tehai (Pais).
2 ,,	Blue Bird Camp	82°	48°	W.S.W.	„	Very fair.	T. to Camp B. B., $13\frac{1}{2}$ m.; 5 hrs. Follow up the Men-ling Ho past three Paï villages. Crossed chain dividing the Men-ling Ho and the Nambang, also the basins of Mekong and Red Rivers. By Impoutsin (large Chin. vill.).
3 ,,	Tchen-lao .	88°	47°	○		Fair. Oppressive.	Camp B. B. to T. (Pais), 10 m.; $3\frac{1}{2}$ hrs. Across chain above the Chen-long Ho or Nambang. Up left bank by Ho-Kale (Chinese).
4 ,,	Camp, Fen-chiu-lin	91°	51°	„	4	Very fair.	T. to Camp F. (Pais), 9 m.; 3 hrs. Across the Chen-long Ho. Right bank, narrow gorge. Rich valley of Ta-ping, thickly populated (Chinese).
5 ,,	Potso .	87°	„	„	2	„	Camp F. to P. (Chinese), 14 m.; 5 hrs. Traversed chain between the C. Long Ho and the Poueuil Ho. By Moun-pa-to-lo (large Lolo village). Country well wooded and watered.

APPENDIX A

Date.	Place of Observation.	Thermometer (Fahr.).		Wind.		Weather.	Remarks.
		Max.	Min.	Direction.	Force.		
1895. 6 April	Ssumao . .	86°	51°		○	Very fair.	P. to S. (Chinese town, of 10,000 inhabitants), 19 m.; 5½ hrs. Entered plain of Ssumao, p.m.
7 "	... .	87°	"		„	„	From 6th to 10th, halt at Ssumao.
8 "	... .	86°	60°		„	„	
9 "	... .	"	59°		„	Storm, 5 p.m.	
10 "	... .	78°	"		„	Storm, 6 p.m.	
11 "	Tchin-oué . .	"	55	W.	2	Rain.	S. to T. (Chinese), 8½ m.; 3 hrs. Crossed the Tou-ti-tchiao by stone bridge, crossed the Mole Ho, affluents of the Poueu Ho and Nam-bang respectively. Left the plain.
12 "	Ta-ou-tse-son . .	"	"		○	Overcast.	Tch. to T. (Chinese), 6 m.; 2½ hrs. Undulating plateau, fir forests.
13 "	Ko-tchien-to . .	82°	57°		„	Fair.	T. to K. (Chinese), 11 m.; 3½ hrs. Crossed the Lanngan Ho, affluent of the Poueu Ho. By Ouit - tse - chai (Chinese).
14 "	Kouen-fong . .	78°	53	"	1	Very fair.	K. to Kouen (Pais), 5 m.; 1½ hr. Across great limestone chain of Talo Mountains by a depressed col 656 yds. wide and 1 m. long.
15 "	Long-tang . .	86°	60°		○	Fair. Oppressive.	K. to L. (two large Pai villages), 7 m.; 2½ hrs. Waterless desert.
16 "	Tiou-fan . .	91°	62	S.W.	1	„	L. to T. (Chinese name, Ssen-song), 10 m.; 3½ hrs. Crossed the Long-tang-ho. By three or four Chinese villages; country bare.
17 "	No-tcha . .	87°	"	„	4	Fair. Cloudy.	T. to N. (Chinese), 10 m.; 1½ hr. By Chiaotse (Chinese). Fir forests.

FROM TONKIN TO INDIA

Date.	Place of Observation.	Thermometer (Fahr.).		Wind.		Weather.	Remarks.
		Max.	Min.	Direction.	Force.		
18 April ^{1895.}	Ta-choui-chong	96°	66°	S.W.	3	Fair.	N. to T. (Chinese), 8 m.; 3 hrs. Steep descent to the Mekong, crossed by ferry—mean width, 153 yds.; current, 2 m. an hour; temp., 66°; no rapids in sight; depth uncertain, but considerable.
19 ,,	Lapatchin	.	"	"	"	"	T. to L. (Chinese), 17 m.; $5\frac{1}{4}$ hrs. By Dayakeu (small Chinese town, 700 inhabitants; residence of a mandarin).
23 ,,	Meng-pou	.	82°	"	"	"	19th to 22nd, halt at Lapatchin. No observations.
24 ,,	Meng-ton	.	78°	"	"	"	L. to M. (Lokaïs), 20 m.; $6\frac{1}{2}$ hrs. Cross the Heu Ho, affluent of Mekong, by wooden bridge—width, 21 yds.; current, 1 knot; depth, 10 ft. By Lalichin (Lolos). Meng-ton (Lokaïs), 13 m.; 5 hrs. By several Lokai villages. Cross the chain between the Lokai Ho affluent and the Mekong. By Chuen-lo (small Chinese town; residence of mandarin and a Lokai chief).
25 ,,	Nampe .	.	95°	75°	S.	2	M. to N. (Chinese), village above Mekong right bank, 9 m.; $3\frac{1}{4}$ hrs. By Tocan (Chinese and Poula), one mile before Nampe, very strong rapid; navigation impracticable. Soundings, Mekong, 131 ft.; no bottom.
26 ,,	Mong-pan .	.	87°	"	"	"	Fair. Sultry. N. to M. (Pai and Chinese), 20 m.; $6\frac{1}{2}$ hrs. Across river by ferry. By Ta - Nampe (Lokaïs). Entered plain of Mong-pan. By Pali and Song-yu-tan (Pai village).

APPENDIX A

Date.	Place of Observation.	Thermometer (Fahr.).		Wind.		Weather	Remarks.
		Max.	Min.	Direction.	Force.		
27 April ^{1895.}	Lotchi-sun .	86°	66°		○	Fair.	M. to L. (Chinese), 12 m.; 4½ hrs. Great fir forests. Crossed the Lan-kiou Ho near Pampo-tchäi (Chinese).
28 ,,	Mong-ka .	89°	68°	S.	„	„	L. to M. (Päis and Chinese), 21 m.; 6½ hrs. Fir forests. Crossed crest of bluff separating the Lan-kiou Ho from plain of Mong-ka, which entered near Chien-mao (Pai). Cut the Mong-ka Ho several times. Halt at Mong-ka.
29 „ 30 „	Ta-pong ...	... 78°	... ...	... S.W.	... 2	Fair. Slight showers.	M. to T. (Chinese), by right bank of Mekong, 27 m.; 8½ hrs. Firs. Hota-ho (Chinese) and Ta-mo-ta-ho (Lokaïs). Ferry over Mekong.
1 May	Kansa .	„	66°	W.	2	...	T. to K. (Chinese and Päis), 12 m.; 4½ hrs. Stiff ascent, by Nan-kan and Pai-yuen (Chinese). Crossed the Latung Ho, affluent of Mekong-Latung.
2 „	Pochan .	„	„		○	Very fair.	K. to P. (large Chinese town), 18 m.; 6 hrs. Ascended the Latung Ho. Valley narrow and wooded. From Touko (large Chinese village) valley open, cultivated, and populated. Crossed chain between Mekong and the Salwen, and descended into valley of Pochan.
3 „	Mienning .	„	62°	S.W.	1	Fair to rainy.	P. to M. (Chinese town of 5000 inhabitants; residence of sub-prefect), 10½ m.; 5½ hrs. Continued descent of valley of the Pochan Ho (source of the Nansing Ho, large affluent of Salwen). By Poman-tsün and Chui-poun.

FROM TONKIN TO INDIA

Date.	Place of Observation.	Thermometer (Fahr.).		Wind.		Weather.	Remarks.
		Max.	Min.	Direction.	Force.		
1895. 4 May	...	...	...	...	...	...	Halt at Mienning.
5 "	Camp False Route	78°	62°	○	Very fair.	M. to Camp F. R., 10½ m.; 3½ hrs. Descent of valley of Nansing Ho; at first broad and cultivated, enclosed and wild later. Camped by river.	
6 "	Pintchou .	87°	59°	S.W.	„	„	Camp F. R. to P., 12 m. Retraced steps to bridge over Nansing Ho near Mienning; thence to edge of plain.
7 "	Camp of the Two Basins	„	51°	„	„	„	P. to Camp T. B., 14 m.; 4¾ hrs. Crossed the chain of separation between Mekong and Salwen.
8 "	Tchong-tchun	„	60°	W.	4	Cloudy. Rain, p.m.	Camp T. B. to T. (Chinese), 7 m.; 2½ hrs. By the Paï Ho. Crossed large chain of hills overhanging Mekong; mean altitude, 8887 ft.
9 "	Pan-tong-ka .	„	66°	○	Very fair. Rain at night.	T. to P. (Chinese), 13 m.; 4 hrs. Followed Mekong valley at mean altitude of 5925 ft.; height above river, 2800 ft. By Tamelan, Mempo, and Nakan.	
10 "	Ta - cheu - tou - kai	„	64°	„	2	Cloudy.	P. to T. (Chinese), 13½ m.; 4½ hrs. As yesterday, by Pa-nong-kai.
11 "	Manto . .	„	„	„	3	Overcast.	T. to M. (Chinese), 13 m.; 4 hrs. Descent into valley of the Mong-ma Ho, affluent of Mekong. Followed right bank by Ta-tseu-kai (large Paï and Chinese townlet). Rice-fields.
12 "	Tcheya . .	84°	69°			Fair. Rain at night.	M. to T. (Chinese), 8 m.; 2½ hrs. Continued ascent of the Mong-ma Ho.

APPENDIX A

Date.	Place of Observation.	Thermometer (Fahr.).		Wind.		Weather.	Remarks.
		Max.	Min.	Direction.	Force.		
1895. 13 May	Lao-Kaitse .	85°	66°	W.	○	Fine day. Heavy showers at night.	T. to L. (Chinese), $2\frac{1}{2}$ hrs. Up valley of the Mong-ma Ho to one of its sources. By Tcha-fang-kai.
14 "	Yünchou .	"	73°	"	3	Fair.	L. to Y., $16\frac{1}{2}$ m.; 6 hrs. Fir forests. Crossed the Lancho Ho, affluent of Mekong, by bamboo bridge — breadth, 43 yds.; depth, 3 ft. Bed of stream five times larger.
15 "	... .	91°	71°		○	Cloudy. Oppressive.	Halt at Yünchou. ¹ Important commercial centre, about 7000 inhabitants; residence of sub-prefect.
16 "	Lotan . .	95°	62°	"	3	Fair. Rain at night.	Y. to L. (large Chinese township), $13\frac{1}{2}$ m.; $4\frac{1}{2}$ hrs. Ascent up right bank of the Pe Hsiao Ho.
17 "	Chun-ning-Fou	84°	66°	E.S.E.	"	...	L. to C. (Chinese prefecture, about 6000 inhabitants). Continued up the Pe Hsiao Ho. By Chiang-chouan.
18 "	Ta-lo-oue .	80°	60°	E.	"	Cloudy. Light rain.	C. to T., 10 m.; $3\frac{1}{2}$ hrs. Crossed two rivers, sources of the Pe Hsiao Ho. By Tampao. Over col in the chain of hills.
19 "	Hsiao-tiou-fan .	"	69	W.	"	Rain.	T. to H., $9\frac{1}{2}$ m.; $3\frac{1}{2}$ hrs. By Chin-chouen to the Mekong valley.
20 "	Salatang . .	"	57		○	"	H. to S., 13 m.; $4\frac{1}{2}$ hrs. Followed Mekong right bank. Crossed river by fine hanging bridge. Zigzag ascent to col, 8556 ft. By Loma.
21 "	Mon-tian-cho .	"	66°		"	"	S. to M., 11 m.; $3\frac{3}{4}$ hrs. By Halo-cheu (small town, about 1500 inhabitants). Along crest to an affluent of the Yang-pi-kiang, whence into valley.

¹ From Yünchou as far as Tali the country is exclusively inhabited by Chinese.

FROM TONKIN TO INDIA

Date.	Place of Observation.	Thermometer (Fahr.).		Wind.		Weather.	Remarks.
		Max.	Min.	Direction.	Force.		
1895. 22 May	Tsa-fa-se	80°	66°	○	Overcast.	M. to T., 13½ m.; 4½ hrs. Down affluent to the Yang-pi-kiang, which crossed by raft. Depth, 12 ft.; current, 1 knot. By Hsiao-pin-kai.	
23 "	Koulo Ho	,"	62°	"	"	T. to K., 15 m.; 4¾ hrs. Across chain forming left flank of the valley of the Yang pi. Fir forests. By Niou-ka and Ouafoulou. Traversed chain separating waters of Mekong and Red Rivers.	
24 "	Chantitang	84°	55	W.	3	Cloudy, but fine.	K. to C., 16 m.; 6½ hrs. By Chi-tsou-kai. Over col 8229 ft. dominating plain of Méng-hua-ting.
25 "	Ta-chang	,"	62°	"	2	Fair.	C. to T., 22½ m.; 7½ hrs. Reached Méng-hua-ting plain at Oupalan village. Crossed an insignificant source of Red River. Rejoined paved road from Méng-hua to Tali at Pou-tcha-chou. By Miao-kai and Ming-cheu, large villages. Plain fertile. Population dense.
26 "	Tali-Fou	,"	55°	"	3	Overcast. Rainy.	T. to Tali-Fou (town of first rank; residence of a Taotai and a Tchentai. Chief commercial centre of W. Yünnan; 20,000 inhabitants; Catholic Mission), 25 m.; 9 hrs. From Méng-hua plain to that of Tali by col. Through town of Chia-Kouan, 5000 inhabitants.
27 "	...	68°	53	"	2	Continuous rain.	From 26th May to 16th June, halt at Tali-Fou.
28 "	...	69°	55°	"	"	"	
29 "	...	68°	60°	"	○	Overcast.	
30 "	...	,"	57°	"	"	Fair.	
31 "	...	69°	61°	"	"	"	

APPENDIX A

Date.	Place of Observation.	Thermometer (Fahr.).		Wind.		Weather.	Remarks.
		Max.	Min.	Direction.	Force.		
1895.							
1 June	...	69°	57	○		Rain.	
2 "	...	66°	55°	"		Fair.	
3 "	...	68°	59	"		Rain.	
4 "	...	66°	"	"		Overcast.	
5 "	...	68°	57	"		Rain.	
6 "	...	"	55	"		Fair.	
7 "	...	67°	"	"		Very fine.	

OBSERVATIONS ON THE CLIMATE OF SOUTH-WEST YÜNNAN

As throughout the whole of Central Asia, Yünnan has a dry season and a rainy season, influenced by the N.E. and S.W. monsoons. The dry season lasts from the 1st or 15th of October to the 1st or 15th of May. August and September are the two wettest months; during which swollen torrents and torn-up roads often render travelling wholly impossible. Many routes are only to be followed by caravans during the dry season, amongst which was the one taken by us from Tayang-ka to Muong-le.

But this general rule is subject to many natural modifications caused by the trend of the mountain chains, altitudes, etc. In winter, for example, the valley of the Red River is completely arid, as also the mountains which dominate it, to a height of 3000 feet; whilst the same ranges from 3000 feet to 8000 feet are thickly wooded and frequently enveloped in mists and rain.

The direction of the wind varies, as shown in the foregoing tables. Generally speaking, it blows from the south-east during the dry months, and from the west in the wet. I never experienced a north wind, but was told that in the winter it often blows hard from this quarter over the plain of Tali, causing wrecks upon the lake.

In a country so mountainous as Yünnan the climate alters much according to altitude. In summer the valleys of the Red River, the Mekong, and the Saiwen, the plains of Muong-le, Ssumao, Yünchou, and the portion of Yünnan formed by the basin of the Yang-tse-kiang, *i.e.* the lower districts from 2000 feet to 4000 feet, are subject to high temperature, 91° to 100° in the daytime, and 76° to 86° at night; whereas in the mountainous regions and higher plains such as those of Tali, Méng-hua-ting, Chunning-fou, etc., from 4000 feet to 7000 feet, the temperature remains within the extremes 53° and 82°. The climate of the plain of Tali (6929 feet) is particularly bracing.

In this part of Yünnan we met with no snow, nor did we sight it on any summits save those of the Tsang Mountains on the 29th May. Certainly we were only there between February and June. The Lolas informed us that in the end of November and in December snow falls almost every year on the chain separating the Red River from the Black River, but that it never lies for more than a few days at a time. The Tsang Mountains are the highest in South-West Yünnan. They rise on the west of the plain of Tali to an average height of 11,500 feet, with some peaks of 12,500 feet and 13,000 feet, and are covered from November to April. Snow also falls every winter in the plain of Tali, but does not lie.

FROM TONKIN TO INDIA

PART II. TALI-FOU TO INDIA

My notebook containing meteorological observations and details of our march from the time of leaving Tali (16th June) having been stolen on the 21st of July, Part II. must be taken up at the latter date. Between June 16th and July 5th the weather had been fine with cloudless sky (an unusual condition at the height of the rains), rainy from July 5th to 14th, and fair again from the 14th to the 21st. My maximum and minimum registering thermometers were stolen at the same time; thenceforth I took the temperatures at 7 a.m., 2 p.m., and 9 p.m.; and their mean will give as nearly as possible that for the day.

Date.	Place of Observation.	Thermometer (Fahr.)			Wind.		Weather.	Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.		
1895. 21 July	Robbery Camp					○	Lowering.	From Camp at Jeyang-sen to R. Camp, 6 m.; $2\frac{1}{4}$ hrs. On the heights of the Mekong right bank. By Patan (Lissous) and Feoumoto (Lamasjen).
22 "	Ta ...					"	"	Halt.
23 "	Hsiao Chouan	75°	82°	78°		"	"	R. Camp to T., 9 m.; $3\frac{1}{2}$ hrs. By Tchen-kioue (Lamasjen). Peak above Mekong, here rolling in deep gorge. Across two torrents, affluents of the M.
24 "	Tsiten . . .	71°	,"	68°	S.W.	3	Fair.	5 m.; $2\frac{1}{2}$ hrs. Route very bad and dangerous, with steep slopes. Torrent.
25 "	Keuntin Kien	73°	80°	69	,"	"	"	4 m.; 2 hrs. Torrent. K. (Lamasjen village).
26 "	Feoutsen . .	77°	,"	78°	○	Lowering.		11 m.; 4 hrs. Torrents. Lamasjen natives.
27 "	Koutsen . .	,"	,"	73	,"		Heavy rain at night.	6 m.; 2 hrs. Torrents. Lamasjen.
28 "	Tié Ho . .	75°	71°	68°	,"		Rain.	7 m.; 3 hrs. Route very bad. By Jo Ho (Lamasjen). Torrents large.
29 "	Se-tchong . .	77°	82	71°	,"		"	7 m.; 3 hrs. Torrents. Natives Lamasjen. By La-tchi-in.

APPENDIX A

Date.	Place of Observation.	Thermometer (Fahr.).			Wind.		Weather.	Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.		
1895. 30 July	In-chouan .	68°	84°	75°	○	Fair.	6 m.; 2½ hours. Torrents. Lamasjen.	
31 "	Sin-tchan-pin .	71°	80°	68°	"	Very fine.	13 m.; 4½ hrs. By Tat-sou (Lissous). Three large torrents. Camp S. (Lamasjen).	
1 Aug.	Toti . .	73°	84°	"	"	Fair. Rain at night.	12 m.; 4½ hrs. Followed brink of Mekong one hour. Crossed river midday. By Petia. Large torrent. T. (Lamasjen).	
2 "	Tolo . .	"	77°	62°	S.	Rain.	Crossing torrents all day. 8 m.; 3½ hrs. By Hesel-eou (Lissous), Tolo (Lamasjen).	
3 "	Fong-chouan .	"	84°	71°	○	Very fine.	11 m.; 4 hrs. Bad wooden bridge over large torrent. Long very steep climb to crest. By Tsiki (Lissous) to F., large village near river (Lamasjen and a few Chinese).	
4 " 5 "	... Camp at Sian-pin-chouan	75° 77°	82° 84°	71° 73°	" 2 ○	Rain. Fair.	Halt. 6 m.; 1¾ hr. Kept on near Mekong bank. Route very bad. By Tspou (Lissous) to camp beside river. Sian. (Lamasjen).	
6 "	Feast Camp .	71°	"	"	"	"	5 m.; 2 hrs. Torrent. By Poumeu (Lissous). Camped in wood by river; bad ground.	
7 "	Lameti . .	68°	82°	"	"	"	6 m.; 2½ hrs. Followed river; then climbed. By Ouapoumé (Lissous) to L. Torrents as usual. No track: we cut one.	
8 "	Lometi . .	69°	80°	71°	"	"	L. (Lissous), 4½ m.; 2 hrs. Slept by river.	

FROM TONKIN TO INDIA

Date	Place of Observation.	Thermometer (Fahr.).			Wind.		Weather.	Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.		
1895. 9 Aug.	Loza . . .	68°	77°	64°	S.	1	Rain.	8½ m.; 3½ hrs. Steep climb at start. Crossed high cliff falling abruptly to river. Five torrents; two villages to L. (Lissous).
10 ,,	Long-ka . . .	69°	80°	71°	○		Fair.	To L. (Lamasjen, a few Chinese), 9 m.; 3¾ hrs. By Topa, Mioua-ki, Chan-chia-la-he, and Tilo, all Lissou villages. By Kitcha, large Mosso village by river bank, which followed. Three torrents.
11 ,,	Into . . .	73°	82°	73°	"	"	"	8½ m.; 3 hrs. Followed river bank by Noko, Lot-chan, to Into (Lamasjen and Chinese). Opposite Hsiao Ouisi, with <i>Catholic Mission</i> .
12 ,,	Lokieou . . .	68°	"	"	"	"	"	6 m.; 2 hrs. Still along river by Pe-lang-tong to L. (Lamasjen).
13 ,,	Haiwa . . .	"	78°	75°	"		Cloudy.	3 m.; 1 hr. By Gaisewa to H. (Lamasjen and Chin.). Halt.
14 ,,	Halo . . .	"	"	"	"	"	"	7 m.; 2½ hrs. Wooden bridge over torrent. By Pintse to H. (Lamasjen).
15 ,,	Halo . . .	"	"	"	"	"	"	
16 ,,	Lamaserai of Kampou	"	"	"	"	"	"	8 m.; 3 hrs. Crossed river (Mekong) by boat. Followed broad route on left bank by Tang-chan, and Kouan-tso-pa to Kampou (two large villages; residence of a Mosso chief or Mokoua). Quitted main road. Up through pine forests to the Lamaserai.

APPENDIX A

Date.	Place of Observation.	Thermometer (Fahr.).			Wind.		Weather.	Remarks.	
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.			
1895. 17 Aug.	Dekou . . .	68°	78°	75°	○	Shower.	9 m.; 3½ hrs. By Sintong, Gocha, and Yetche (residence of Mosso grand chief, the Yetche Mokoua) to Dekou. Country Mosso.		
18 ..	Landou . . .	69°	82°	71°	„	Fair.	18½ m.; 7 hrs. By Mosso village of Ngaiwa, Palotso, and Dzeti: large Chinese village of Poutie, to Landou (Chinese-Mosso).		
19 ..	Tsekou . . .	71°	84°	73°	„	Slightly overcast.	16 m.; 6 hrs. Cross stream by Lota (Thibetans). Narrow gorges as far as Ouoloulon opposite Tsekou. Passed river (Mekong) by rope bridge at Tsedjrong. Catholic Mission in Tsekou, right bank, 330 feet above river.		
20 ..	... . .	75	86	77	„	Rain.	From 19th to 23rd, halt at Tsekou.	
21 ..	... . .	"	"	"	„	"		
22 ..	... . .	"	"	"	„	"		
23 ..	... . .	"	"	"	„	"		
24 ..	Gotra . . .	73	80	73	„	Fair.	13 m., reckoned from Tsedjrong; 5 hrs. By Kiou-do-lon, Séré, and Tinango to Gotra. Here a hot sulphur spring, temp. 118. ¹		
25 ..	Itsi . . .	68°	82°	71°	N.	1	Very fair.	14½ m.; 5 hrs. Crossed to left bank of Mekong by double-cord bridge. By Tsereton, Latsa, and Itsí. Slept in an isolated building between Latsa and Itsí. River ran in long defiles. Route narrow and dangerous.	

¹ From Tsekou to Atentsé all villages passed were Thibetan.

FROM TONKIN TO INDIA

Date.	Place of Observation.	Thermometer (Fahr.).			Wind.		Weather.	Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.		
1895. 26 Aug.	Kinchu . .	71°	78°	59°	N.	2	Very f	2 1/2 m.; 7 1/2 hrs. By Gonja. Scaled high cliffs by Ki-ape. Left Mekong valley for that of the Atentsé R., which ascended.
27 "	Atentsé . .	55°	71°	51°	o		"	1 3/4 m.; 40 min.
28 "	Lon-kon-gon .	50°	75°	71°	S.	2	Hazy.	Return to Tsekou. Route already described.
29 "	Latsa . .	69°	80°	73°	"	3	Fair.	
30 "	Tsekou . .	"	"	"	o		"	
10 Sept.	Séré . .		69°					From 1st to 9th Sept., halt at Tsekou. No observations. Weather overcast and threatening, with showers. Temp. 73° to 86°.
11 "	Last camp on the Mekong	57°	75°	69°	S.E.	2	Rain in morning.	After leaving Gotra, followed river bank by narrow, thickly wooded (larch) valley to camp on left bank of large torrent, the Lili. 9 m. []
12 "	Four Tent Camp	62°	71°	60°	S.W.	3	Cloudy, showery.	5 1/2 m.; 2 1/2 hrs. From mouth of valley of R. Lili to Londre (Thibetans). Thence ascent of left bank, south branch of that river. []
13 "	Tululu Camp .	55°	51°	50°	o		Rain.	5 1/2 m.; 2 1/2 hrs. Followed stream at first at a distance, afterwards close. Crossed left to right bank by wood bridge. Mighty forests.

APPENDIX A

Date.	Place of Observation.	Thermometer (Fahr.).			Wind.		Weather.	Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.		
1895. 14 Sept.	Camp of the Pass	48°	50°	37°	○		Rain.	6½ m.; 3 hrs. Gentle ascent, right bank. Then very stiff climb through forests. Camped on crest of chain separating the Mekong and the Salwen at 12,837 ft., near Thibetan hut. Fine pastures.
15 "	Rhododendron Camp	39°	55°	55°	"		Fine day. Wet night.	3½ m.; 1½ hr. Passed two affluents of R. Donyon. Descended through high grass and trees.
16 "	R. Donyon Camp	50°	62°	"	"		Fair.	5 m.; 2¼ hrs. Reached brink of R. Donyon, which followed to near a bridge. Camped in clearing made by selves.
17 "	Crest Camp	55°	57°	59°	"		Rain.	3½ m.; 2½ hrs. Climbed by right bank to peak. Camped on crest of range between Rs. Salwen and Donyon.
18 "	Meuradan	57°	66°	62°	"		"	6 m.; 2¼ hrs. Followed crest. At branch route to Tchamoutong took left track. Steep descent to R. Donyon through bamboo woods and long grass. Cross Donyon to Meuradan (Loutses).
19 "	Tionra	59°	71°	73°	"		Fair.	11 m. Reascended yesterday's path. Crossed crest, and descended towards the Salwen through high grass. Slept at Tionra (Loutses), 40 ft. above river.

FROM TONKIN TO INDIA

Date.	Place of Observation.	Thermometer (Fahr.).			Wind.		Weather.	Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.		
1895. 20 Sept.	...	75°	84°	71°	S.	1	Very fair.	Halt at Tionra.
21 "	...	71°	"	73°	"	"	Fair.	"
22 "	Tchoton .	73°	80°	71°	"	2	f.,	Passage of the Salwen by boat. Camp opposite shore near Tchoton (Loutses).
23 "	Londse .	68°	78°	69°		○	Cloudy.	11 m.; 4 hrs. Followed right bank of river, by Tchatsa. Hydraulic mill (Loutses).
24 "	Djewan .	69°	77°	"	"	1	Fair.	6½ m.; 2 hrs. Continued by Salwen right bank. By Guisa to Djewan (Loutses).
25 "	Nidji .	71°	"	64°	"	"	"	2 m. Up course of stream, affluent of Salwen. Slept in single dwelling at Nidji (Lissous). ¹
26 "	Big Cliff Camp	66°	80°	57°	S.W.	2	Rain.	3 m.; 2 hrs. Left bank, torrent, steep gradient, high grass. Camp on narrow platform above torrent.
27 "	...	59°	73°	"	"	1	Halt.	
28 "	Snow Camp .	"	59°	46°	"	○	Fair. Brief storm.	7 m.; 4 hrs. Abrupt scramble. Thick forest. Camp on bare plateau near huge snow mass. Route severe and dangerous.
29 "	Tamalo .	46°	68°	68°	N.W.	1	Fair.	8½ m.; 4½ hrs. Stiff climb to col, 12,830 ft., surmounted at 1.47 p.m. Stunted shrubs and moss on crest. Descent into bamboo brake, then long grass. Tamalo (Lissous and Loutses).

¹ From leaving the Salwen until reaching India, tracks impracticable for animals loaded or not, except in the plain of Khamti.

APPENDIX A

Date.	Place of Observation.	Thermometer (Fahr.).			Wind		Weather.	Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.		
1895.								
30 Sept.	...	68°	73°	64°	N.W.	1	Fair.	
1 Oct.	...	62°	69°	59°	N.	„	Cloudy.	
2 „	...	57°	68°	60°	„	0	Rain.	
3 „	...	59°	66°	„°	„	„	„	
4 „	Camp of the Loutse Lady	60°	50°	50°	„	„	„	
5 „	Shingle Camp	46°	55°	48°	W.N.W.	2	Uncertain.	4 m.; $2\frac{3}{4}$ hrs. Passed col traversing Mangon Ko chain. Descended into forest to camp beside R. Seké.
6 „	Morass Camp	50°	51°	46°	W.	1	Changeable. Showery.	5 m.; 3 hrs. Reascended left bank R. Seké; moderate slope.
7 „	Camp Bellevue	44°	42°	35°	N.W.	2	Very fair.	9 m.; $4\frac{1}{2}$ hrs. Level ground, with pools and swamps. Later, sharp gradients to col crossing chain of separation between upper waters of Salwen and Irrawadi. Surmounted second higher col in lesser range before beginning descent towards the Kiou-kiang.
8 „	Dead Men Camp	41°	68°	53°	N.E.	1	„	7 m.; $3\frac{1}{2}$ hrs. Downwards into forest and long grass. Camped by deserted Kioutse hut.
9 „	Toulong	48°	71°	51°	„	„	„	1 $\frac{1}{2}$ m. Village began at about 1000 feet above the Kiou-kiang. Kioutse huts scattered apart on hillsides.

FROM TONKIN TO INDIA

Date.	Place of Observation.	Thermometer (Fahr.).			Wind.		Weather.	Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.		
1895. 10 Oct.	...	50°	73°	50°	○	"	Very fair.	Halt at Toulong till 12th.
11 "	...	48°	71°	"	"	"		
12 "	...	50°	"	51°	"	"		
13 "	Mosquito Camp	"	73°	64°	N.E.	2	"	Descent to the Kiou-kiang.
14 "	Aruikan.	59°	71°	59°	○	Overcast. Light rain.	1½ m.; 1 hr. Crossed the Kiou-kiang by cord bridge. Thence climbed through long grass to isolated dwellings, Aruikan.	
15 "	Anniversary Camp	55°	68°	60°	S.E.	1	Very fair.	3 m.; 2 hrs. Redescended and pitched by river. High grass.
16 "	Deidoum	59°	"	55°	S.W.	"	"	3 m.; 2½ hrs. Up cliff. Half an hour steep descent to R. Tatei, which crossed. Lay at Deidoum (Kioutses) for night. Track very bad and perilous.
17 "	Great Slide Camp	53°	69°	"	S.	"	"	4 m.; 2½ hrs. Stream. Scarp. Col. Surmounted, and camped below by river.
18 "	Ladder Camp	51°	71°	53°	○	"	"	3½ m.; 2 hrs. skirted edge of the river among rocks or a little above in the woods. Camped on sand spit.
19 "	Hollow Rock Camp	55°	"	"	"	"	"	1½ m.; 1½ hr. By the river.
20 "	Nine Fire Camp	50°	68°	48°	"	"	"	4 m.; 2¼ hrs. Crossed River Madoumadon. Climbed through forests and high grass to crest between this river valley and that of the Kiou-kiang. No water from R. Madoumadon till camp.

APPENDIX A

Date.	Place of Observation.	Thermometer (Fahr.).			Wind.		Weather.	Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.		
1895. 21 Oct.	Moss Camp .	51°	64°	42°		o	Fair.	3 m.; 2 hrs. Forests. Camped a little short of col.
22 "	Camp of the River Tetchen	46°	,"	57°		,"	Drizzle.	4 m.; 2 hrs. Over col. Down through forests. No water till river reached.
23 "	Tuki Mu .	59°	66°	"	S.W.	2	"	5 m.: 3 hrs. Crossed several hills and streams in descent to the Kiou-kiang brink. Leaving river, ascended, and passed night in one of scattered Kioutse dwellings.
24 "	...	55°	68°	59°	"	1	"	Heavy rain. } Halt till 26th.
25 "	...	57°	69°	"	"	2	"	
26 "	...	55°	68°	57°	"	2	"	
27 "	Deluge Camp	53°	69°	"	"	"	"	3 m.; 1½ hr. Passed the R. Geling by self-made bamboo bridge. Scaled crest between the Geling and the Tuki Mu. Followed to confluence of latter with Kiou-kiang.
28 "	Safety Camp .	59°	73°	"	o	Fair.	½ m. Crossed the Tuki Mu by cord bridge. Followed course of Kiou-kiang.	
29 "	Camp of the Leeches	57°	71°	59°	"	"	"	4½ m.; 4 hrs. Continued by river. Camp on small beach.
30 "	Camp of the R. Dublu	59°	73°	60°	"	"	"	6½ m.; 4½ hrs. Along the Kiou-kiang for 1½ hr. Then mounted chain separating it from R. Dublu. Camped by confluence of Dublu and Telo.

FROM TONKIN TO INDIA

Date.	Place of Observation.	Thermometer (Fahr.).			Wind.		Weather.	Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.		
1895. 31 Oct.	Mandoum . .	53°	68°	59°		o	Cloudy.	1 m.; 1 hr. Bridged the Dublu with bamboos. Also liana bridge. Ascended left bank of R. Telo. Camped in bamboo brake near Mandoum (Kioutses).
1 Nov.	Camp of the R. Telo	55°	64°	"	"		Fair.	1½ m. Rafted over Telo. Up right bank. Crossed Telou torrent.
2 "	Terrace Camp	53°	60°	55°	"		Very fair.	4 m.; 3¼ hrs. Climbed along right flank crest of Telou valley. No water.
3 "	Camp of the R. Reunnam	48°	64°	60°	"		Overcast.	4½ m.; 3 hrs. Forests. Crossed col. Camped by R. Reunnam.
4 "	Camp of Diamai's Death	53°	69°	"	"		Heavy rain.	3½ m.; 4 hrs. Marched in water. Bed of torrent.
5 "	Duma . . (No. 1)	57°	71°	"	"		Continuous rain.	4½ m.; 3½ hrs. Followed the Reunnam to confluence of the Wan Ou. Struck off on left bank to interior. Slept at Duma (Kioutses).
6 "	... . .	59°	68°	64°	S.W.	3	Incessant rain.	Halt.
7 "	Duma . . (No. 2)	57°	60°	57°		o	Fair.	5 m.; 3 hrs. Brink of Sinbinto its confluence with Reunnam, which crossed. Mountain, forest, stream. Slept at another Duma (Kioutses).
8 "	Dzôn Redzi Camp	55°	59°	55°	"	"		4 m.; 2½ hrs. Same struggles.
9 "	Long Crest Camp	"	59°	"	"		Cloudy. Showery.	7 m.; 3½ hrs. After crossing two streams, kept on long spur. Better forest track.

APPENDIX A

Date.	Place of Observation.	Thermometer (Fahr.).			Wind.		Weather.	Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.		
1895. 10 Nov.	Camp of the R. Tsan	57°	68°	60°	○	0	Fair.	6 m.; 3 hrs. Descent beside the Pinti to its confluence with R. Tsan.
11 "	Big Dam Camp	55°	69°	59°	"	0	"	6 m.; 4 hrs. Up left bank of Tsan, first wooded, then rocky. Crossed it by a large fish-dam (Kioutses).
12 "	Pandam.	57°	66°	"	W.	2	"	5 m.; 4 hrs. Remounted right bank of Tsan to its confluence with the Pandam, which followed to village of same name among rice-fields (Kioutses).
13 "	...	"	62°	60°	○	0	Heavy rain.	Halt.
14 "	...	"	68°	"	N.	1	Fair.	
15 "	Meleken	59°	71°	"	○	0	"	5½ m.; 2 hrs. Followed Pandam to its junction with Nam Lian. Quitted stream for woods on left. To Melekeu (Kioutses). Good forest track.
16 "	Delou	57°	73°	55°	"	0	"	11 m.; 4½ hrs. Recrossed Nam Lian. Over col in Leke chain, to D. (Kioutses).
17 "	Tobacco Camp	55°	77°	60°	"	0	"	2 m.; 1 hr. Torrent, above right bank of which camped.
18 "	Camp of the Plain	60°	75°	"	"	0	"	10 m.; 4½ hrs. Descent to brink of the Nam Chom. Along valley, path opening. Emerged from forests, and debouched on great plain of Khamti.

FROM TONKIN TO INDIA

Date.	Place of Observation.	Thermometer (Fahr.).			Wind.		Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.	
1895. 19 Nov.	Khamti (Padao)	57°	77°	57	○	In plain of Khamti, fog every morning till 9 a.m., then splendid day.	8½ m.; 2½ hrs. On the flat. Crossed the Nam Kiou near Tsan Kan (large Khamti village); again by boat (width, 130 yards; depth, 10 feet; current sluggish). Forced the Nam-Sai. By boat across the Nam Pela (could be forded). Several vil- lages. Crossed the Nam Toun, and reached Padao or Putau, the capital of Khamti.
20 "	...	53°	75°	59°	N.N.W.	1	
21 "	...	51°	77°	"	N.	"	
22 "	...	50°	75°	"	○		
23 "	...	51°	77°	57	N.N.W.	2	
24 "	...	50°	75°	"	"	1	
25 "	Signal Camp	48°	73°	"	○		6 m.; 2 hrs. In the plain. Confluence of the Nam Taheu with the Nam Pela. By Lomking.
26 "	Singleng	50	59	51	"	Very fair.	9 m.; 4½ hrs. From bank of the Nam Kokao began to ascend at first gently. After crossing Nam Taheu, steep to col. Torrents and slight descent to Singleng (Kioutses).
27 "	...	46	68	55°	"	Halt.	
28 "	False Start Camp	48	71	57	"	Fair to overcast.	3 m.; 1½ hr. Passed Cheulemi, last Kioutse hamlet.
29 "	Camp of the Nam Lang	50	59	55°	2	Cloudy. Slight sleet.	5 m.; 3 hrs. The Nam Lang joined by the Nam Sanglian. Fol- lowed left bank and crossed by raft.

APPENDIX A

Date.	Place of Observation.	Thermometer (Fahr.).			Wind.		Weather.	Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.		
1895. 30 Nov.	Camp of the Nam Tsai	53°	57°	51°	○	Cloudy. Slight sleet.	4 m.; 4 hrs. Confluence of Nam Lang and Nam Tsai. Ascended bed of Nam Tsai in the water.	
1 Dec.	Camp of the Ouépoucot	51°	„	50°	„	Fair.	5 m.; 4 hrs. Quitted the Nam Tsai after 1½ hr. Up through woods over col Nam Tsai Boum. Camped by the Ouépoucot.	
2 "	Camp of the Nam Phungan	48°	59°	51°	„	"	5 m.; 3½ hrs. Traversed col separating Ouépoucot from the Nam Phungan.	
3 "	Hornbill Camp	46°	57°	50°	„	"	5 m.; 3½ hrs. Held on up the Nam Phungan, cutting affluent Nam Moi. Camped by the Nam Phungan.	
4 "	...	48°	55°	42°	N.W.	"	Halt.	
5 "	...	42°	50°	46°		1		
6 "	...	„	46°	41°		○		
7 "	Camp of the Altars	37°	42°	33°	„	"	4½ m.; 4 hrs. Course of the Nam Phungan.	
8 "	India Camp	32°	37°	35°	„	"	4 m.; 4½ hrs. Climbing the col separating the waters of the Brahmaputra and the Irrawadi. Crossed it at 9875 ft. in 2 ft. of snow. Began descent by spur. Camped in forest. Water rare and brackish.	
9 "	Camp of the R. Dapha	37	44°	44°	„	Cloudy.	6 m.; 3 hrs. Continued descent of spurs. Passed confluence of two sources of R. Dapha, which then followed down.	
10 "	Fever Camp	40°	51°	„	W.	1	Fair.	4 m.; 2 hrs. Quitted the Dapha valley for ascent through woods on left. Camped in clearing.

FROM TONKIN TO INDIA

Date.	Place of Observation.	Thermometer (Fahr.).			Wind.		Weather.	Remarks.
		7 a.m.	2 p.m.	9 p.m.	Direction.	Force.		
1895. 11 Dec.	Summit Camp	37	48°	42°	○	Snow.	3½ m.; 2½ hrs. Climbed in forests. Camped on summit of chain dividing the Dihing and the Dapha. Waterless route; a few muddy pools on crest.	
12 "	Coolie Camp .	39°	50°	57	„	Heavy rain.	9 m.; 5 hrs. Long descent. Camped by affluent of Dihing. Only one spring on march.	
13 "	Camp of the R. Dihing	51°	62°	„	„	Fair.	6 m.; 4½ hrs. Tracked a stream to its confluence with the Dihing. Camped right bank.	
14 "	Castaway Camp	50°	68°	64°	„	„	1½ m.; 1 hr. Descended the Dihing, cutting it three times. Camped left bank.	
15 "	Camp of Good News	53	71°	62°	„	„	½ m. Camped right bank. Note: Between the third ford yesterday and the crossing to-day there was also a path on right bank.	
16 "	Clay Cliff Camp	50°	68°	60°	„	„	8½ m.; 3½ hrs. Down the right bank of the Dihing.	
17 "	Daphagang .						8 m.; 3½ hrs. Leaving the Dihing, mounted to the right. At Bouniang (Mishmis) crossed the R. Dapha by bamboo bridge. Reached Daphagang 3.21 p.m. (first Singpho village in Assam).	

APPENDIX A

From Daphagang to Sadiya, route known. From Daphagang to Bishigaom, residence of a Singpho chief, two to two and a half days' march (about 17 miles, no village on the route). After leaving Bishi, good level road.

From Bishigaom to Kagam, cir. 6 miles. Kagam to Mounan, 10 miles. (At N'ling, half-way, route practicable for elephants.)

From Nounan to Ninglou, cir. 18 miles (residence of principal Singpho chief). Ninglou to Sadiya by water (Dihing and Brahmaputra), 8 hours. Sadiya, residence of an Assistant Political Officer: first Hindu town and European post.

OBSERVATIONS ON THE CLIMATE OF NORTH-WEST YÜNNAN AND OF THE UPPER BASIN OF THE IRAWADI

In Yünnan above the 26th lat. the two seasons (dry and rainy) are much less marked than farther to the south. The upper valley of the Mekong (from the 25th to the 27th lat.) is very dry; it rarely rains there even in the summer. In the region of Hsiao-Oüsi, Tsekou, and Atentsé (27° to 28° 30' N.) there are two rainy seasons—one from July to the end of September, and the other (the stronger) in February. The valley of the Salwen is covered with thick vegetation, and must be damper than that of the Mekong. In the basin of the Irawadi, which shares the climatic conditions of Indo-China, the two seasons are well marked; nevertheless, the foregoing tables show that in the height of the dry season we had rain on fourteen days out of sixty-seven (from the 1st of October to the 7th of December). According to the natives, the summer rains are both long and abundant, a fact which the exuberance of the vegetation strongly confirms.

In all these regions (at any rate in the seasons when we traversed them) the winds are rare and light in force. In the upper basin of the Irawadi a perpetual calm reigns throughout the winter, the blasts from the north being stopped by the lofty range which separates this basin from the high ground of Thibet.

Except on a few crests (the summits of Likiang, Dokerla, Pemachou, etc.), there are no perennial snows on the mountains of North-West Yünnan. But the great chains which divide the Mekong from the Yang-tse-kiang, the Mekong from the Salwen, the Salwen from the Poula Ho, and the Poula Ho from the Irawadi, are covered with snow from December to May, and cannot (at least the three last) then be crossed. In the winter it is impossible to pass from the Mekong to the Salwen farther north than the col of Fey-long-kiao at Lao.

FROM TONKIN TO INDIA

SUPPLEMENTARY GEOGRAPHICAL INFORMATION GATHERED ON THE MARCH

Point of Departure of Routes
and Names of Rivers about
which Information was col-
lected.

PART I. MONGTSE TO SSUMAO

- | | |
|-------------------------|---|
| SHA-HA-TE | From Sha-ha-te a route starts which joins that from Manhao to Muong-la in 2 days at Van-pou-tien.
(Direction S.) |
| POUN-KA | From Poun-ka a route starts leading to Muong-Teun on the Nam-Na (affluent of the Black River). [S. 20° W.] ¹ |
| TA-YANG-KA | Route from Ta-yang-ka to Talan, 4 or 5 days' march.
[N. 85° W.] Stages—(1) Tuca (30 lis, ² 7½ m. cir.); (2) Tica-liang-tse (90 lis, 22½ m. cir.); (3) Sin-pin-you (50 lis, 12½ m. cir.); (4) Seu-Koue (60 lis, 15 m. cir.); (5) Talan (20 lis, 5 m. cir.). |
| LANTCHEU or LAMI | Mule path from Lantcheu to Muong-la along valley of the Nam-Na. [S. 50° E.] 10 days from Lantcheu to Muong-Teun, and 10 days from Muong-Teun to Muong-la. |
| NILUNG-HO | The Nilung-Ho should be an affluent of the Black River (Ly-sien-kiang), junction near large Chinese village called Latan (?) |
| LA-KA-HO and LANIOU-HO | The La-ka-Ho is an affluent of the Laniou-Ho, which must itself flow into the Senan-kiang (an important affluent on left bank of the Ly-sien-kiang, according to the natives). |
| MONG-IE-TSIN-HO | The Mo-te-Ho and the Menling-Ho unite to form the Mong-ie-tsion-Ho, an important branch of the Ly-sien-kiang. Confluence with the latter is in the district of Talan. |
| MUONG-LE | Routes starting from Muong-le:—
1. Towards Lai-chau (Pavie map). [S. 65° E.]
2. Towards Ipang and the tea districts; about 6 days. [S. 50° W.] Stages or principal villages <i>en route</i> —Ta-tso-bang, Tchin-seu, Eul-tong, Koua-tson-lin, Men-penting, Mou-lou.
3. Towards Ssumao. (Marked on my map.)
4. Towards Poueuil, 7 days. [N. 55° W.] Stages—
(1) Sen-kia-tsen; (2) Pouking; (3) Tchang-pin; (4) Men-ka-Di; (5) Ti-tchong-o; (6) Meng-sin-Ka. |

¹ The directions in upright brackets are those of a line as the crow flies between the points of departure and arrival.

² In Yunnan the li is approximately equal to 439 yards.

APPENDIX A

Point of Departure of Routes
and Names of Rivers about
which Information was col-
lected.

CHEUN-LONG-HO (NAM BANG)

The Cheun-Long-Ho has its source about 2 days N. of Muong-Hsien, a village 3 days from Tchen-Lao up the river. Down stream it flows by Xien-tong, residence of a Paï chief subject to China. A route leads from Tchen-lao to Xien-tong in 2 days (sleep at Hsiao-Teou).

The Cheun-Long-Ho is the source of the Nam Bang, a large affluent of the Mekong.

SSUMAO

Routes starting from Ssumao :—

1. Towards Poueu, 2 days. (Fr. Garnier and Bourne.)
2. Towards Muong-le, 7 to 8 days. (Marked on my map.)
3. Towards Ipang, 6 days. (Bourne and Colquhoun.)
4. To Xien-Houng, 9 days. (Fr. Garnier.)
5. Towards Mong-Wan, 7 days. [S. 5° W.] Follows the Dayakeu road (v. my map) for 4 days, branching at Long-tang.
From Long-tang to Mong-Wan, $3\frac{1}{2}$ days. *Stages* —(1) Lin-Koua-ten ; (2) Tchen-kong, cross the Tiouloun-kiang (Mekong) by boat ; (3) Ba-fa-po, $3\frac{1}{2}$ days to Mong-Wan. Road good and frequented.
6. Route to Mong-pan, 6 to 7 days. [N. 55° W.] *Stages* —(1) Sin-keu-tsong ; (2) Ma-mon ; (3) Poueu-Ho (cross this river) ; (4) Hsiao-he-kiang (cross this river) ; (5) Pan-ha-tse ; (6) Mong-tchu ; (7) Mong-pan.

PART II. SSUMAO TO MÉNG-HUA-TING

MONG-PAN

Route starting from Mong-pan :—

1. Towards Mong-ka, 2 days. (Marked on my map.)
2. Towards Mong-tchou (30 lis, $7\frac{1}{2}$ m. cir.), important centre inhabited by the same population as Mong-pan (Païs, Chinese, and Lokaïs).
3. Towards Poueu, 5 days. [S. 55° E.] *Stages* —(1) Tchang-liang-sen ; (2) Pa-te-liang ; (3) Tatien ; (4) Kan-tien ; (5) Poueu.
4. Towards Chouen-lo. (Marked on my map.)
5. Towards Ssumao ; described above.

FROM TONKIN TO INDIA

Point of Departure of Routes
and Names of Rivers about
which Information was col-
lected.

MONG-KA	<ol style="list-style-type: none"> 1. To Poueul, 4 long days. [E. as far as Oueï-yuen, then S. 25° E.] <i>Stages</i>—(1) Salafang ; (2) Oueï-yuen ; (3) Sisa ; (4) Poueul. <p><i>Note.</i>—From confirmed information, Oueï-yuen is not in the N.E. as marked on the Chinese maps and from them copied into European maps. Oueï-yuen is a fairly important centre, near which are the two large salt mines of Hsiang-iен-Kin and Lang-chou-Kin (latter 1 day N. of Oueï-yuen).</p> <ol style="list-style-type: none"> 2. There is a route from Poueul into Burmah by Têng-Yueh, passing Mong-ka and Tapong (ferry over Mekong on the Mong-ka—Mienning route). From Tapong to Têng-Yueh, about 21 days' march. [N. 8° W. as far as Kêng-Ma, then N. 35° W. approximately.] <i>Stages</i>—(1) Tamano ; (2) Sang-Kaichin ; (3) Monsa ; (6) Kêng-Ma ; (12) Chen-Kang ; (14) Passage of the Salwen ; (21) Têng-Yueh. 3. There must be a route from Mong-ka to Tali-Fou of which the first stages would be—(1) Ouen-Cong ; (2) Mong-Lo ; (3) Taopicaï. I could not trace it farther.
CHUEN-LO	<ol style="list-style-type: none"> 1. From Chuen-Lo to Mong-Lang, 3 days, by Tachio-Ten, Mong-long-co, Sihai, and Toung-chewan. [General direction S. 70° W.] Mong-Lang is an important centre and the residence of a mandarin with the title <i>Ting</i>. 2. From Chuen-Lo a route starts W.N.W. to Ninhai, 1 day, by Ningoua and Mong-Kin. By continuing in this direction one would come upon the independent <i>Ié-Kawas</i> (?) (<i>ié</i> means wild). The Chinese account of them is that they live nearly naked and are armed with lances and poisoned arrows.
TACHIN	Three days W. of Tachin are silver mines in process of working ; Mona-Chang.
SUYEN-KIANG	At the confluence of the Sekiang and the Mekong, which here at the ferry bears the local name of Suyen-kiang. A route starts hence to Ya-Kou, Ka-Kong, Momi, and Molo, districts situated between the Mekong and the route from Mong-ka to Mong-pan.
TAMANO	From Tamano to Muong-Moun, 1 day.
LINGUEU	From Lingueu to Tapong (Mekong), 1 to 2 days S.W.

APPENDIX A

Point of Departure of Routes
and Names of Rivers about
which Information was col-
lected.

MIENNING

Routes from Mienning :—

1. Main road to Yünchou, 4 days at 15 m. a day.
[N. 10° E.] *Stages*—(1) Lating; (2) You-Ouan-chui; (3) Taou-Tao-chui; (4) Yünchou.
2. From Taou-Tao-chui there is a straight road to Chunning-Fou in 4 short days. [N. 35° W.] By this route it is 7 days from Mienning to Chunning-Fou; thus: 4th day, Leu-peu-ten-kai; 5th, Lima-chin-kai; 6th, Mong-La; 7th, Chunning-Fou.
3. From Ling-chin-kai to Chunning-Fou there is a third route, making an elbow to the W., 5 days: 1st —?; 2nd, Sila; 3rd, Hsiao-tia; 4th, Ouang-chen-konen; 5th, Chunning-Fou.
4. From Mienning to Mong-Moun; no details.
5. From Mienning to the Mekong, ferry at Kali. (Marked on my map.)
6. Another route from Mienning to the Mekong, ferry at Mata, 2 days E.S.E.

NAN-TING-HO

This river, which passes near Pochan and Mienning, and of which we discovered the sources above Ponchan, is a large affluent of the Salwen, which it joins a little below Mēng-Ting.

YÜNCHOU

Direct route from Yünchou to Mēng-Hua-Ting and Tali-Fou, 8 days [N. 15° E.] at 15 m. a day; thus: (1) Mong-Lan; (2) Chao-Kai; (3) Chen-Tchou-Ton (cross the Mekong); (4) Kong-Lan; (5) Kilung; (6) Lo-Tchiou; (7) Tcha-fang-Sao; (8) Mēng-Hua-Ting.

PART III. MĒNG-HUA-TING TO FONG-CHOUAN

KIANG-PIN

Is a stage on a route from Chen-chuan-cheou to Yang-pi. [Kiang-Pin to Chen-chuan N. 10° E.; Kiang-Pin to Yang-pi S. 25° E.] *Stages*—(1) Cha-ki; (2) —?; (3) Kiang-Pin; (4) Kiao-cheou (salt); (5) —?; (6) Yang-pi.

YÜN-LONG-CHEOU

Route from Yün-long-cheou to Yüng-chang-fou, 9 days. [S. 15° W.] *Stages*—(1) Hsin-Kiao-La-Tchao; (2) Kang-haitse; (3) —?; (4) Yüng-pin; (5) Lao-Kiao (cross the Mekong); (6) Cha-yong; (7) Chouitchai; (8) Pan-kiao (where the route from Tali to Yüng-chang is joined); (9) Yüng-chang-fou.

FEY-LONG-KIAO

From Fey-Long-Kiao to Lou-kiang-Pa (Salwen), 7 days. [S.S.W.] *Stages*—(1) Kieoui-tcheou; (2) Toten; (3) Tsao-kiang; (4) Sou-Tchouï; (5) (6) —?; (7) Lou-kiang-Pa (this must be the ferry of that name on the Salwen in the route from Tali to Bhamo in 25° N.).

FROM TONKIN TO INDIA

Point of Departure of Routes
and Names of Rivers about
which Information was col-
lected.

FEY-LONG-KIAO—*cont.* .

LOUKOU

COMMUNICATIONS BE-
TWEEN THE MEKONG
AND THE SALWEN,
AND NAMES OF LIS-
SOU VILLAGES UPON
THE LATTER RIVER

ROUTE BY THE LEFT
BANK OF THE MEKONG

From Kicoui-tcheou another route branches, leading in 7 days to Yüng-chang-Fou. [S.] *Stages*—(1) Tong-Kien; (2) Loui-Tchouang; (3) Li-Tchai-Pa; (4) Lo-Fou-Tchang; (5) Sihou-Loa-Tchouang; (6) Pan-Kiao-Kai (where the route from Yün-long to Yüng-chang is joined); (7) Yüng-chang-Fou.

1. Route from Loukou to Teng-Yueh, 8 to 10 days. [S. 40° W.]: passing (1) Moupo; (2) Souko-choui; (3) Manyu; (4) Man-Kouan-Kai; (5) Kan-tin-Kai; (6) Ta-tang-tse; (7) Liou-kiang-pou; (8) Hsiao-Kai; (9) Kuou-tchi-Kai; (10) Ouei-Kai; (11) Kou-hai-tse; (12) Teng-Yueh.
2. Route from Loukou into the country of the Poumans (?). Opened within the last few years, and only for pedestrians, it has the reputation of being very unhealthy. General direction W. The route crosses the Salwen and the great range behind, in which are tea plantations. It then cuts the Hsiao-kiang, affluent of the Long-Song-kiang, a large river that flows into Burmah (no doubt the Chouély). In this valley the natives are said to be the savage Lansous (?). Thence one reaches the country of the wild Poumans, where the My-le-kiang has its course, and farther the Lang-tchouan-kiang near English confines. From Loukou to the Poumans' territory is about 12 days. These Poumans must be the same as the Kachins or Singphos of Upper Burmah, the Lang-tchouan-kiang must be the eastern branch of the Irawadi (N'mai-Kha), and the My-le-kiang its western branch (Mali-Kha). But who can these Lansou savages be?
3. There is a foot track up the right bank of the Salwen, by which, at 1 day's distance from Loukou, is reached Tenkeu, the residence of a toussou.

Routes crossing the mountain chain and only practicable for pedestrians, each from 2 to 4 days' march; start—

1. From Tse-Ho.
2. From Teki, bordering on Tasouin (cord bridge), whence a way proceeds towards Upper Burmah.
3. From Fong-Chouan to Zali.
Going northward from Tasouin are found Dapelou, Lomate, Zali, and Ketseki.

From Fey-Long-Kiao a mule track ascends the left bank of the Mekong.

APPENDIX A

Point of Departure of Routes
and Names of Rivers about
which Information was col-
lected.

ROUTE BY THE LEFT BANK OF THE MEKONG —continued

MINES

From Fey-Long-Kiao to Hsiao-Ouisi, 22 days. *Stages*—
(1) Chout-tchan ; (2) Pe-tchi-tin ; (3) Tang-pang ; (4) Kien-tsao-teoui ; (5) Sse-ts'in (salt mine) ; (6) Pê-yang ; (7) Choui-tchou ; (8) Chouen-tan-tsen ; (9) Tsin-men-Keou ; (10) Pe-ti-pin ; (11) Lakimi ; (12) Yüm-pan-Kai ; (13) Hoan-ten ; (14) Choui-ho-ta ; (15) Chiten ; (16) Tche-i-pin ; (17) To-y ; (18) Oueïten ; (19) Tcha-Ho ; (20) Pan-ti-tuen ; (21) Pe-ki-suen ; (22) Hsiao-Ouisi.

From Pe-ti-pin (10) there is a route in the direction of Ly-kiang-fou, 5 days, passing Chen-chuan-cheou. [N. 75° W.] This path can only join the actual river bank at Yüm-pan-Kai.

Almost opposite Tolo on the bank of the Mekong are three mines :—

1. Near Puiteen, small gold mine called Ta-fa-tchan, dependence of Ly-kiang, distant $\frac{1}{2}$ a day.
2. Pi-li-ho, in the vicinity of which is a mountain named Papao, containing much gold and a little silver, at 1 day's march.
3. Kong-kiang, gold mine, 1 day's distance.
Near Ouisi there is another mine—Long-pan-tchan ; contains much silver and some gold.

PART IV. FONG-CHOUAN TO INDIA

ROUTES FROM THE ME- KONG TO THE SALWEN. LISSOU VILLAGES ON THE LATTER RIVER

Continuing N. of Zali and Ketseki are the villages of Losa, Alidi, Ladamili, Ouatoudi (cord bridge and boats). Opposite Ouatoudi there is a route leading to the Kiou-kiang (E. branch of the Irawadi).

1. A route leaves Kitcha and skirts the village of Nisa.
Going from Nisa southward one finds the following villages along the river :—Ho, Hepeti, Mecheu, Hetolo, Aleuti, Ouatchouko, Lamouti, Tayon, Chapo, Latongue, Kalati, Fontien.
From Nisa northward :—Lissa, Lamati, Ouetchedo, Nysesalo, Tcheti, Lidzenoua, Chemito, Madji, Pongnidi, Goluga, Latsati, Poulatsa, Voko.
2. Another route starting from Haiwa reaches the Salwen at Latsa (near which is Metaka, on the height). From Latsa to Tasou from 1 to 2 days, by Ilaka and Tanda.
Names of villages between Tasou and Djewan :—Right bank—Daga, Seugo, Seuke, Tadati, Dalati, Lopata, Tcheukou, Macheuda, Tsato, Djewan. Left bank—Badiama, Poladi, Litedi, Iego, Tchelanda, Yuragan (just opposite Djewan).

FROM TONKIN TO INDIA

Point of Departure of Routes
and Names of Rivers about
which Information was col-
lected.

ATENTSÉ

1. Route to Tsarong and Lhaça (practicable for mules).

1st Day: Atentsé to Menkong [N. 60°]. From Atentsé follow the road from Verkalo as far as Dong, then branch to the left across a small range and descend on the bank of the Mekong at Lieou-ten-kiao.

2nd Day: Cross the Mekong by a good cord bridge, and ascend the right bank as far as Merechu.

3rd, 4th, and 5th Days: Three days are necessary to cross the great chain (very lofty), which bears in this district the name of Milechan (from Milefou, a god worshipped in Thibet).

Evening of 5th Day: Sleep at Latou, near the Oukio.

6th Day: Cross the Oukio by a wooden bridge. Traverse a small chain, and sleep at Kiepo.

7th Day: Recross the Oukio by bridge at Kiepo. Surmount a chain, and sleep at Tchrana, near the left bank of the Salwen.

Opposite Tchrana there is a good rope bridge; on the other side stands the Lamaserai of Menkong. From Tchrana another route descends on Lakonra, Aben, Longpou, Songta, and Tchamoutong (Menkong to Tchamoutong, 7 days).

From Menkong a mule track leads in 6 days to the prefecture of Sounga-Kieu-Dzong. A route leaves this town in the direction of Giamda and Lhaça across Pomi by Chiuden-Gomba. This Pomi (or Poyul) is a large and wholly unexplored country, which stretches to the west of the province of Tsarong as far as Giamda. It is reputed full of brigands and dangers, the refuge apparently of all the bandits of Thibet (?).

The Lhaça route quits the one just described at Latou, near the Oukio, and ascends the course of that river for 20 days to Pomda (way followed by Father Desgodins from Menkong to Tsiamdo). To the west of Pomda spreads a wide plateau, the Tchan-tsao-pa, which takes 5 days to cross; after which one descends on to the Loutse-kiang (Salwen), which is spanned by a bridge, and finally the traveller joins the Imperial high road from Tatsien-lou to Lhaça at Oua-ho.

2. Route direct to Tatsien-lou, through the country of Meli or Houang-Lama, 34 days at 12 or 15 m. a day. [N. 60° E.] Practicable for mules.

APPENDIX A

Point of Departure of Routes
and Names of Rivers about
which Information was col-
lected.

ATENTSE—*continued*

Stages—(1) Moulouchou (pass a chain before enter-
ing on the basin of the Blue River); (2) Tapin-
tin; (3) Guiédam, on the right bank of the Kin-
cha-kiang (river negotiable in boats at all
seasons); (4) Teke; (5) Kiao-Teou; (6) Lompa;
(7) Koupi, on a lake said to be one-third the size
of Tali, in the plain of Tchong-tien, which takes
2 or 3 days to traverse; (8) Tchong-tien, a small
town, up to which point the population is a mixed
one of Thibetans and Chinese, and after it ex-
clusively Thibetan; (9) Piné, over a high moun-
tain range; (10) Lo-ti-ho, cross an affluent of the
Yang-tse; (11) Lopo; (12) Houja; (13) Tse-mek-
ka-pa; (14) Kiake; (15) Lerou (commencement
of the Meli or Houang-Lama), cross the river by
bridge; (16) Outia-po; (17) in the mountains, no
villages; (18) Meli, on the top of a mountain,
large Lamaserai (the only one on this route)—
cross a river which traverses the Kien-tchan, and
much lower down falls into the Yang-tse (doubt-
less the Yalong-kiang of Desgodins' map); (19)
Tongli-ke; (20) No-han-po; (21) Tsemi-Roua
(plain); (22) Chake; (23) Kint-chan (gold mine);
(24) Tchen-ke-ti (large plain); (25) Giti; (26)
Paoulo (in the Setchuen), rope bridge over river;
(27) Tsene-keuti; (28) Oucheu; (29) Tchaoualon
(large plain); (30) Mongnia; (31) Tchana; (32)
Kontupo; (33) Tchelo; (34) Hatia-toung-ho,
Santa, Tatsien-lou.

Route easy, inhabitants peaceful, country very
mountainous, save for the few plains mentioned.

Note.—The spelling of all names on this route is
given under reserve, they having been furnished
me by a Chinese merchant of Atentsé; and the
Chinese generally disfigure Thibetan names by
their bad pronunciation.

LANDJRE
This Thibetan village is situated at the confluence of two
branches of the river Lili. On the right flank of the
northern branch is cut a good road leading to Tsarong
and touching the Salwen at Lakonra. [N. 6° W.]

TOULONG
Above Toulong in ascending the Kiou-kiang the follow-
ing places are found:—Mambil, Temedam, Kensoum
(left bank), Serawan (right bank), Chia-keu (left bank).
The inhabitants are Kioutses.

From Toulong to Chia-keu, 3 days. As far as Kensoum the
district pays tribute to the Yetche Mokoua. Serawan and
Chia-keu are under the authority of the Kampo Mokoua.

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Point of Departure of Routes
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which Information was col-
lected.

ToulonG—continued . . .

Above Chia-keu the Kioutses pay tribute to Tsarong.

From Chia-keu to the Tsarong frontier, 3 days' march.

I do not know the extent of these marches, but it must be slight, as the Kioutses make only short stages, and the tracks are detestable and full of obstacles. Nor do I know to what latitude the valley of the Kiou-kiang is inhabited. While telling me there were Thibetan villages on the course of the river, the natives were unable to mention any by name. Are there any? I myself doubt it.

TAMALO

From Tamalo a very fair track descends the valley of the Poula-Ho to the Salwen. [S. 40° E.]

MANDOUM

From Mandoum going up the left bank of the river Telo, a route, admitted to be very bad and dangerous by the Kioutses themselves, leads in 8 days to the first village Tsetekon, passing afterwards by the following localities:—Teunnami, Dumidan, Teloulandam, Tumsepou, Hadoumlapoun, Malaipoun, Meteupoun, Telalongpoun. The last named is said to be 28 days' (one moon) march from Mandoum, and only 7 or 8 days from the sources of the Telo. These stages are evidently very short; looking at the distance as the crow flies, I am convinced that, whatever may be the state of the track, the journey could be accomplished in 15 or 20 days.

The natives who inhabit this region are Kioutses and Lissous. The latter, who are in the minority, must have come from the valleys adjacent to the Kiou-kiang and the Lantakou, one of its affluents. The country is cold, and only has one harvest a year. Inhabitants very wild; the Kioutses of Mandoum are so timorous that they can hardly be said to have any settled abode. There is no route communicating between the villages on the higher waters of the Telo and Thibet, and, speaking widely, none between Thibet and the upper basin of the Irawadi. The habitable zone between these two regions is of great extent, and practically impassable. It was not to be thought of to outflank Tsarong by our route in an attempt to gain directly the great unexplored tract of Pomi.

Towards the south, a route following the left bank of the Neydu (or Tourong, or Kiou-kiang) passes the following villages:—Seloum, Dam, Terandam, Ioumtem, Zangur, Manzing, Debondam, Konglam, Maboumgam, Meyun, Paameyin, Pisê, Delinam, Dadzoum, Habour, Seungoum, Singouhol, Sanchiel, Teran, Gonru,

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lected.

MANDOUM—*continued.*

Ouakoué, Rondam, Pombour, Loukinson, Serindanamzer, Zerta, Rekoui, Konglam, Kiangtou (at the confluence of the Lantakou, or river of the golden sands), Ouadamkon.

No information farther south, except that below Kiangtou the country is said to be called Kioui, and the people are Lissous. It is difficult to know where the Kachins or Singphos begin along this branch of the Irawadi.

From Mandoum to Kiangtou is 7 days' hard marching.
Inhabitants Kioutses and a few Lissous.

DUMA

From Duma to the great plain of Hapon (or Apon, a Kioutse name), situated at the confluence of the Reunnam and the Tsan, and peopled by Singphos, 8 days' march down the Reunnam.

KHAMTI

From Khamti into Assam, three routes:—

1. By the col of Chaukan or Tsaukan, S. 55° W. of Padao and the sources of the Dihung; no snow; but some risk from Singpho robbers, who, according to the Khamti folk, take free toll of travellers.

About 25 days' march to Sadiya. This is the route that has been followed by all the English expeditions that have been in Khamti (Wilcox, Woodthorpe, Gray).

2. By the col of the Phungan-Boum (marked on my map), 22 days. A good deal of snow on the col from January to March, but never impassable. It is the one most used by the dwellers in Khamti.

3. The third passes over higher, colder, and more snow-encumbered cols, and is extremely difficult in mid-winter; moreover, for 4 days it traverses a hitherto unexplored district, peopled by independent Mishmis, who are very hostile to Europeans.

Stages.—First 4 days up the valley of the Nam-kiou, and that of the Nam-Yin, its most western branch [N. 30° W.]; 5th day, pass the col; 6th, descent; 7th, down the valley of the Nam-Delong (?); 8th, *id.*, sleep at Piaon-Kong, first independent Mishmi village; 9th, Koutika, *id.*, reach the valley of the Nam-Derao (Khamti name for the Lohit Brahmaputra); 10th, Tongson, independent Mishmis; 11th, Peshouson, *id.*; 12th, Tsantaï, subject Mishmis; 13th, Belon, *id.*; 14th, Kamlong-Kong, *id.*; 15th, Mankao, Thaïs or Khamtis; 16th, Tsong-kan, *id.* (descend the

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lected.

KHAMTI—*continued*

valley of the Brahmaputra); 17th, Keloum, Assamese; 18th, Chuika, *id.*; 19th, Talap, *id.* (by boat on the Brahmaputra)—point where the railway from Dibrugarh begins—altogether 19 days. But Huoé-Daung, prime minister and nephew of the king of Khamti, who was my informant on the above itineraries, only estimated our route by the Phungan-Boum at 19 days, whereas it took 22; so that I believe 22 days should be allowed for this one also, and 27 or 28 for the first of the three.

ROUTES INTO BURMAH.

Note.—Huoé-Daung had twice made the journey to Bhamo and Mandalay, and showed me proofs that each occasion was genuine. He gave in detail the stages on the two routes which he had taken. Inasmuch as he was intelligent and endowed with a remarkable memory, and as his information concerning the Assam routes was confirmed by experience, I am inclined to place reliance on that which he furnished with regard to Burmah. Yet, in the *Map of the Khimpour District, Bor-Kampti Country, Naga Hills, etc.*, published in 1894 by the Geographical Service of India, there is a route from Khamti to Bhamo traced in accordance with received intelligence, in which not one of the names mentioned by Huoé-Daung appears. Can this be a third route? or is it possible that the information supplied to the English by the Kachin natives was intentionally erroneous?

Route 1.—Twenty-nine days from Khamti to Mogoung (Burmese name) or Mainghong (Thaï name), whence by rowing or steam boat to Bhamo.

Stages—1st day, Langdao (Khamtis); 2nd, Moung-yac (Singphos or Kachins, Burmese name for independent Singphos); 3rd, Kauka; 4th, Nam-doungra; 5th, N'daian; 6th, Lecho; 7th, Hasa; 8th, Kaition; 9th, N'kam Lakan; 10th, N'da Kelon; 11th, N'ouat Tsaokan; 12th, Haoutonka; 13th, Menlon; 14th, Deroupom; 15th, Paning-kou; 16th, Naïnting (from the 2nd to the 16th day inclusive, independent Singphos); 17th, N'bom; 18th, Logna; 19th, N'siensoing; 20th, Ningkon; 21st, Menoupom; 22nd, Tinka; 23rd, Lamkonglo; 24th, Medouzop; 25th, Lopan; 26th, Maupangla (from the 17th to the 26th day inclusive, subject Singphos); 27th, Poukan (Thais or Shans); 28th, Loili (Thais); 29th, Mogoung.

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Point of Departure of Routes
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lected.

ROUTES INTO BURMAH *—continued*

Route 2. Follows the valley of the western branch of the Irawadi and goes in 33 days to Bhamo.

Stages — (1) Tsaukan (Khamtis); (2) Kankiou (Khamtis); (3) Keunong (Khanungs, Khamti name for Kioutses); (4) N'oan (independent Singphos); (5) N'deun; (6) Ningpien; (7) Thaoumasa (from the 7th to the 18th, ten days of very broken and almost barren country); (18) Komsen (from the 4th to the 18th day inclusive, independent Singphos); (19) Melgouchop; (20) Seulo; (21) Melou; (22) Ouavan; (23) Ouavan; (24) Baokouka; (25) Sinyangka; (26) Pangin (*uninhabited, marked on English maps*); (27) Pankietsop (*uninhabited, marked on English maps*); (28) Ouaton and Nong-nang (from the 19th to the 28th day, subject Singphos); (29) Moung-hom (Thais or Shans); (30) Maingna (Thais, rowing boat; *marked on English maps*); (31) Ouangmo; (32) Katkiou (steamer); (33) Bhamo. Finally, there is a third route, a combination of the other two; from Hasa (7th day of Route 1) to Komsen (18th day of Route 2), in 7 or 8 days, by Singtan, N'baounon, and Kopian.

APPENDIX B

BY THE AUTHOR

I

NATURAL HISTORY

I. MAMMALS¹

On the Collection of Mammals brought from Yunnan by Prince Henry of Orleans

By E. DE POUSARGUES

THE 60 specimens of mammals collected by Prince Henry of Orleans in the course of his journey across Yünnan may be divided into 28 species, of which 12 had not been previously recorded, except in the province of Setchuen and the principality of Moupin, or, in other words, on the eastern slope of the plateau of Thibet. These 12 have been marked by an asterisk in the subjoined list. This extension of Thibetan forms into Yünnan need not surprise us, since the whole of the north-west part of this province of China is very elevated, its orographic system is closely connected with that of Setchuen, of which it is in reality only the southern prolongation and termination, and the border between the two districts is purely a virtual and administrative one. On the other hand, none of the southern portion of Yünnan differs geographically from Burmah, Upper Tonkin, and South-East China, and we recognise in the mammalogical types brought from this region by Prince Henry most of the species already recorded by Anderson on the frontiers of Yünnan and Burmah, and by Swinhoe in the south-eastern provinces of the Chinese Empire.

No new type figures in the following list, but many specimens have allowed of the elucidation of several hitherto obscure points touching the affinity of certain species, whilst others, representing forms which the Museum did not before possess, will prove a valuable addition to our galleries.

*NECTOGALE ELEGANS (*A.-M. Edw.*); native name, *Khio-chi-oua*; 4 specimens.

*UROPSILUS SORICIPES (*A.-M. Edw.*); native name, *Chi-oua-san-djiri*; 1 specimen.—

The existence in the north of Yünnan of this hitherto rare member of the Insectivora disposes of my recently published hypothesis restricting the habitat of the *Uropsilus* to the principality of Moupin, and at the same time implies its presence in Setchuen.

AILURUS FULGENS (*F. Cuv.*); 2 specimens.—The Panda is indicated by Anderson as more common on the borders of Burmah and Yünnan than in the Himalayas.

MARTES FLAVIGULA (*Bodd.*); 1 specimen.—Anderson makes no mention of this

¹ Extract from the *Bulletin du Muséum d'histoire naturelle*, 1896, No. 5.

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species, which, however, propagates in the west across Burmah and Assam as far as Nepaul, where it has been recorded by Hodgson.

LUTRA MONTICULA? (*Hodgs.*) ; 1 specimen.—The skull of this otter having been lost, its species is not capable of strict definition.

CANIS LUPUS, var. PALLIPES (*Svrk.*) ; 2 specimens.

PAGUMA LARVATA (*Tem.*) ; 5 specimens.—The province of Yünnan would seem to mark the western limit of the habitat of this *Paradoxura*; no writer has recorded it in Burmah, while it is common all over the south of China from Eastern Thibet to Formosa.

VIVERRA ZIBETHA, var. ASHTONI (*Swinh.*) ; 5 specimens.—In this variety the black dorsal line, the black and white circles below the neck, and the large clearly marked rings on the tail, merge with the rest of the hair in a slightly speckled and almost regular grey tint.

FELIS TIGRIS (*L.*) ; 1 specimen.

FELIS PARDUS (*L.*) ; 5 specimens.—This panther belongs to the variety *F. Fontanieri* (*A.-M. Edw.*).

FELIS PARDUS, var. MELAS (*Desm.*) ; 1 specimen.—These three large members of the feline tribe are also recorded by Anderson in Western Yünnan.

FELIS BENGALENSIS, var. PARDOCHROUS (*Hodgs.*) ; native name, *Chu-ndzeu* ; 1 specimen.—The Museum did not before possess any example of this beautiful variety so clearly characterised by the shape of the spots on its coat. Anderson's description applies exactly to the specimen in question: "The hair is of a bright yellow colour mottled with numerous spots in shape like rosettes, and with small black rings with centres of a tawny hue darker than the pale shade at the edge of the rosettes. Of the four black stripes noticeable on the head the two outer ones branch into two lines widening towards the shoulder-blades and enclosing a space which is brown like the rosettes."

FELIS MOORMENSIS (*Hodgs.*) ; 1 specimen.—As in the last case, this species had not up till now been represented in our galleries. The specimen offered by Prince Henry of Orleans is that of a young one only half-grown: its coat of uniform russet brown shows on the forehead and cheeks the grey and white streaks edged with black which are characteristic of the species.

FELIS MOORMENSIS, var. NIGRESCENS (*Hodgs.*) ; 1 specimen.—Here the dark grey coat has only preserved the shade of the form type in a large reddish-brown patch between the shoulders, but the usual stripes on the face and the white extremity under the tail are sufficient evidence of the specific identity of this and the preceding.

Besides this dark variety of the *F. Moormensis*, another with a definitely spotted¹ coat has been recorded without even a sub-specific denomination by Blyth in 1863: but this latter may probably belong to the following species.

*FELIS TRISTIS (*A.-M. Edw.*) ; 1 specimen.—Numerous skins of this spotted species have been sent to us at various times from Setchuen by Prince Henry of Orleans and the missionaries at Tatsien-lou, and an examination of them has admitted of an exact description of their affinities. It is with the *F. Moormensis* that the *F. Tristis* is most nearly allied, and not, as supposed by Elliott, with the *F. Marmorata* (*Mart.*), of which the tail is incomparably longer and the face markings very different. In this latter respect, on the contrary, there is complete similarity between the *F. Moormensis* and the *F. Tristis*, and the tail of the latter not only presents the same proportions and shape as that of *F. Moormensis*, but also the same shade distribution at the extremity of black above and white beneath. Further, in all the specimens of the *F. Tristis* that I have investigated there was that reddish band between the shoulders which I remarked above in the dark variety of the *FELIS MOORMENSIS*.

¹ Blyth: a Nipalese specimen (*F. Moormensis*) in the India Museum is very distinctly and conspicuously spotted (*P.Z.S.*, 1863, p. 185).

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**FELIS LYNX, var. ISABELLINA* (*Blyth*) ; 1 specimen.

PTEROMYS YUNNANENSIS (*Anders.*) ; 4 specimens, of which one young one was exactly similar to the adults.

**PTEROMYS XANTHIPES* (*A.-M. Edw.*) ; native name, *Tang-la* ; 3 specimens.—This species, described according to examples obtained at Tchely, was subsequently met with at Szechuen.

**SCIURUS PERNYI* (*A.-M. Edw.*) ; native name, *Thong-li* ; 4 specimens.

SCIURUS MACCLELLANDI (*Horsf.*) ; native name, *Thong-tehra* ; 2 specimens.

**MUS CHEVRIERI* (*A.-M. Edw.*) ; native name, *La-kha-chi-oua* ; 3 specimens.

**RHIZOMYS VESTITUS* (*A.-M. Edw.*) ; native name, *Gni-ma-chi-oua* ; 3 specimens.—By its large dimensions, and above all by the extreme shortness of its tail, this species is very distinct from those of the same race in India and Indo-China.

**LAGOMYS TIBETANUS* (*A.-M. Edw.*) ; native name, *Aoura* ; 1 specimen.

**NEMORHEDUS GRISEUS* (*A.-M. Edw.*) ; 1 specimen.—This young one scarcely measured 2 ft. 6 in. from the nose to the root of the tail; the head was still undeveloped; the dark-brown dorsal line was more strongly marked than in the adult, beginning on the forehead in a small lock of bristly hair, and continuing unbroken by the nape of the neck and the spine to the tuft at the end of the tail.

NEMORHEDUS EDWARDSI (*Dav.*) ; 2 pairs of horns.

**BUDORCAS TAXICOLA* (*Hodgs.*) ; 2 pairs of horns.

MOSCHUS MOSCHIFERUS (*L.*) ; 1 specimen.

**CERVULUS LACRYMANS* (*A.-M. Edw.*) ; 1 specimen.

On a Gibbon of a New Species from Upper Tonkin

By E. DE POUSARGUES

HYLOBATES HENRICI (nov. spec.).

H. colore flavo : supra pilis ad basim intenso, apieem versus pallide flavescensibus cinereoque dilutissime tinctis : infra pilis unicoloribus : pectore inferiore, axillis abdomineque et stramineo luteis : sed genis, mento, gula, collo inferiore pectoreque mammarum tenus splendide fulvis, rutilis, quasi aurotis. Vertice, nucha colloque superiore mediis nigerrima notatis macula elongata, angusta, fusiforme, longiore ter quam latiore et abrupte circumsita.

♀ Adult. Type, Laï-Chau, Tonkin, 1892. Prince Henry of Orleans.

The Museum unfortunately only possesses one incomplete skin of this Gibbon, mutilated of its fore members from the wrist and of its hind members from the knee. One of the callosities as well as the genital and anal organs have also disappeared. The development of the breasts indicates a full-grown female. The following are the measurements:—

	Ft.	In.
Length of head and body from nose to callosities	2	5 $\frac{1}{8}$
“ upper arm	0	9 $\frac{1}{2}$
“ fore arm	0	11 $\frac{4}{5}$

The prevailing tint of the coat is a glossy bright yellow varying in intensity in different parts of the body from pale to golden. On the upper surface of the head and trunk the hair is thick, long, and fleecy, merging from deep yellow at the roots into a lighter slightly grised shade towards the extremities. This grey

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tinge is much less extensive and pronounced on the outer hind part of the members, where the fur is shorter and of a warmer hue. On the fore limbs this colouring is uniform to above the wrist, and probably continued so on the upper side of the paws, though it is not possible to speak with certainty in regard to the extremities of the hind legs in consequence of their having been amputated too high. A large longitudinal black patch starts from the centre of the vertex $1\frac{3}{5}$ in. behind the line of the eyebrow, widening over the top of the cranium, maintaining an even breadth for a space, and gradually contracting again as it follows the middle of the back of the neck from the nape to the beginning of the shoulder-blade, where it fines to a point. This marking is in no way similar in shape to the more or less dark and sometimes vaguely defined semicircular cap in other species. *H. pileatus* (Gr.), *H. Mulleri* (Mart.), *H. Javanicus* (Mtsch.).

In the monkey in question the length of this streak, $5\frac{1}{2}$ in., much exceeds its breadth, which at its maximum is only $1\frac{3}{5}$ in. Its width is clearly defined, giving it the appearance of a long black stem in strong contrast to the surrounding yellow surface. On the brow in front of this black patch the hair is of a uniform rather light yellow turning to deep orange tawny on the cheeks, sides of head, chin, throat, under side of neck, and top of the chest as far as the breasts. Upon the remainder of the chest, stomach, and inner face of the limbs the covering is fairly long but not thick, and of a regular pale yellow. Just over the eyes the yellowish-white hair mixed with a few silky black threads traces a narrow border on the superciliary arch too faint to merit the name of a frontal band. The bald skin of the face is dark brown; and the ears, of the same colour, are rounded, minute, and entirely hidden in the surrounding growth, although bare themselves save for some long black hairs on their inner edge, which meet at the top of the cavity in a thin tuft.

On account of these different peculiarities I have thought it proper to distinguish this Gibbon specifically under the name of *Hylobates Henrici* in honour of Prince Henry of Orleans, to whom its discovery is due. This particular skin was taken at Lai-Chau (Tonkin), a little to the north of the Black River and not far from the southern frontier of Yünnan.

I do not believe the *H. Henrici* can be considered to be a hitherto unrecorded variety of an already known species in the regions of the vicinity. The females of the *lar* and *hoolock* Gibbons from Burmah and the north of Siam often change their coat to a yellow somewhat resembling that of the *H. Henrici*, but paler and mostly of a yellowish-grey, with the white whiskers and frontal band always visible. It is further to be noted that neither Blyth nor Anderson, who had many opportunities for close study of a large number of these animals, have ever recorded the presence of a black cephalic patch, and this peculiarity is moreover cited as a distinctive characteristic by M. Matschie in his review of the species of the genus *Hylobates*.¹

Among the females of the species *H. pileatus* (Gr.) of Siam and Cambodia, the roots of the hair are not yellow, but vary from white in the young to brown turning to grey in the adults; the black cephalic patch, either oval or semicircular, is shaped like a skull-cap of about equal length and breadth, which only involves the vertex, and is divided from the eyebrow line by a narrow white band: while, lastly, as soon as the first signs of the coif become manifest, there appears on the chest a corresponding black patch which spreads rapidly with the maturity of the animal, covering the abdomen, mounting beneath the neck to the throat, and in old females reaching even the chin and the whiskers.

Would it not seem likely, on the other hand, that the *H. Henrici* may be identical with the yellow Gibbon of the island of Hainan which Swinhoe² has

¹ Matschie.—*Sitzber. Ges. naturf. Fr.*, Berlin, pp. 209, 210. 1893.

² *Proc. Zool. Soc. London*, p. 224. 1870.

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merely recorded in these few words: "The Golden-silk Yuen which is yellow . . . difficult to procure"? Careful research throughout that island, on the south-west coasts of China, and in the north of Tonkin, alone can settle the question and determine at the same time if this yellow colour is common to both sexes of this Gibbon, or if there is a sexual dichroism as in the case of other species.

2. BIRDS

Note on the Birds collected in Yünnan by Prince Henry of Orleans in the course of his recent Journey from Tonkin to India¹

By M. E. OUSTALET

From his travels through Tonkin, Yünnan, the independent parts of Upper Burmah, Southern Thibet, and Assam, Prince Henry of Orleans has brought back a large number of birds, which he has generously presented to the Museum of Natural History. This collection is one of great interest, not only on account of the presence of several new forms, but also for the hitherto unpublished particulars which it furnishes upon the ornithological fauna of Yünnan, of which province the western part alone, in its contiguity to Burmah, had been explored from the zoological point of view by the English naturalist John Anderson in 1868 and 1875. The Prince and his companions, on the contrary, traversed the south, the north-west, and the centre of Yünnan, which they entered in the beginning of February 1895 by way of Laokay on the Red River. After first proceeding in a westerly direction by Manhao and Ssumao to the Mekong, they ascended to the north, past Tali-Fou, and with many windings and repeated crossings of the great river arrived at Tsekou on the 19th of August. Profiting by an enforced delay of two weeks in this locality, Prince Henry remitted thence to the Museum, as he had already done from Tali-Fou, a portion of his collections, and obtained with the help of the missionaries stationed at Tsekou new specimens, which are not the least interesting part of the whole. Tsekou itself is really situated in Thibetan territory at a comparatively slight distance south of the mission post of Yerkalo, whence the Abbé Desgodins had sent the Museum many rare specimens, and of the route from Batang to Tatsien-lou which Prince Henry and M. Bonvalot followed some years ago on their way to Setchuen, along which they made such a fine collection at the time. Tatsien-lou, which, thanks to Mgr. Biet and Fathers Mussot, Soulié, and Dejean, has lately furnished rich ornithological contributions to the Museum, itself forms part of that province of Setchuen where the Abbé A. David had made several of his most important discoveries. We are not surprised, therefore, to meet in the series of birds arranged by Prince Henry at Tsekou with many forms of the Upper Mekong, Thibet, and Setchuen that were already familiar in the accumulations of the above-mentioned naturalists. As I have before had occasion to remark, the valley of the Mekong, in the upper part of which Yerkalo and Tsekou are situated, constitutes one of the natural outlets by which a part of the ornithological fauna of Thibet and Setchuen finds its way into Yünnan and Indo-China.

From Tsekou the expedition turning sharp to the west crossed successively the Salwen, the Irawadi, and their affluents, and on the 24th December 1895 reached Sadi in Assam, where the perilous part of the journey ended.

During this period of eleven months Prince Henry of Orleans secured nearly 200 specimens of birds, the majority of which now figure in the public collection of the Museum. A careful study of these, just completed, shows them to belong to

¹ Extract from the *Bulletin du Muséum d'histoire naturelle*, 1896, Nos. 5 and 7.

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121 species, more than two-thirds of which were not met with by Anderson. Of the latter the following is the list :—

1. *Palaeornis Salvadorii* (Oust.).
2. *Accipiter nisus* (L.).
3. *Cerchneis tinnunculus* (L.).
4. *Glaucidium Brodiei* (Burt).
5. *Cyanops Davisoni* (Hume).
6. *Gecinus Guerini* (Malh.).
7. *Picus (Hypopicus) hyperythrus* (Vig.).
8. *Lynx torquilla* (L.).
9. *Cuculus poliocephalus* (Lath.).
10. *Upupa epops* (L.).
11. *Æthopiga Seheriae*, var. *labecula* (McCl.).
12. *Dicæum ignipectus* (Hodgs.).
13. *Chloropsis aurifrons* (Tem.).
14. *Merula Gouldi* (J. V.).
15. *Turdus ruficollis* (Pall.).
16. *T. pallidus* (Tem.).
17. *Monticola cyanæa* (L.).
18. *Ruticilla aurorea* (Gm.).
19. *R. frontalis* (Vig.).
20. *Rhyacornis fuliginosa* (Vig.).
21. *Nemura rufilata* (Hodgs.).
22. *Sutoria longicaudata* (Lath.).
23. *Brachypteryx cruralis* (Hodgs.).
24. *Notodelta leucura* (Hodgs.).
25. *Prinia gracilis* (Frankl.).
26. *Phylloscopus lugubris* (Tick.).
27. *Ph. proregulus* (Pall.).
28. *Ph. fulvifacies* (Swinh.).
29. *Myiophereus Eugenei* (Hume).
30. *Garrulax albicularis* (Gould).
31. *G. pectoralis* (Gould).
32. *Babax lanceolatus* (J. V.).
33. *Trochalopteron Ellioti* (J. V.).
34. *T. squamatum* (Gould).
35. *Pomatorhinus Maclellandi*, var. *Armandi* (Oust.)?
36. *Conostoma aymodium* (Hodgs.).
37. *Otocompsa flaviventris* (Tick.).
- *38. *Criniger Henrici* (n. sp.).
39. *Malacias pulchella* (G. A.).
40. *M. Desgodinsi* (Dav. and Oust.).
41. *Pyctorhis sinensis* (Gm.).
42. *Ilyxornis rubricapilla* (Tick.).
- *43. *Ixulus Rouxi* (n. sp.).
44. *Staphidia torqueola* (Swinh.).
45. *Alcippe Phayrei* (Bl.).
46. *Alcippe (Proparus) Bieti* (Oust.).
47. *Yuhina diademata* (J. V.).
48. *Y. gularis* (Hodgs.).
49. *S. strigula* (Hodgs.).
50. *Leiothrix lutea* (Scop.).
51. *Cutia nipalensis* (Hodgs.).
52. *Troglodytes nipalensis* (Hodgs.).
53. *Sitta cæsia* (Mey. and W.).
54. *S. villosa* (J. V.).
55. *Certhia himalayana* (Vig.).
56. *Parus minor* (Tem. and Schl.).
57. *Parus monticolus* (Vig.).
58. *P. dichrous* (Hodgs.).
59. *P. ater*, var. *amodius* (Hodgs.).
60. *Parus (Machlolophus) rex* (A. Dav.).
61. *Acredula concinna* (Gould).
62. *A. Bonvaloti* (Oust.).
63. *Ptererythrius rufiventris* (Blyth).
64. *Buchanga leucophaea* (V.).
65. *Oriolus Trailli* (Vig.).
66. *Grauculus Macei* (Less.).
67. *Alseonax latirostris* (Raffl.).
68. *Muscicapula maculata* (Tick.).
69. *Chelydorhynx hypoxantha* (Hodgs.).
70. *Cryptolopha cinereocapilla* (Hutt.).
71. *C. tephrocephala* (Hodgs.).
72. *Niltava sundara* (Hodgs.).
73. *Motacilla Hodgsoni* (Bl.).
74. *Microcichla Scouleri* (Vig.).
75. *Emberiza spodocephala* (Pall.).
76. *Pycnorhampus affinis* (Blyth).
- *77. *Chrysomitris ambigua* (n. sp.).
78. *Passer rutilans* (Tem.).
79. *Munia acuticauda* (Hodgs.).
80. *Dendrocitta himalayensis* (Vig.).
81. *Columba leuconota* (Vig.).
82. *Dendrotreron Hodgsoni* (Vig.).
83. *Treron (Sphenocercus) sphenurus* (Vig.).
84. *Ithaginis cruentus* (Hardw.).
85. *Ceriornis Temmincki* (Gr.).
86. *Pucrasia Meyeri* (Mad.).
87. *Nycthemerus Andersoni* (Ell.).
- *88. *Arboricola Henrici* (n. sp.).
89. *Erythrura phœnicura* (Penn.).
90. *Actitis hypoleucus* (L.).
91. *Charadrius fulvus* (Gm.).

By adding these 91 species to the 115 recorded by Anderson in the west of the same province, we get a total of 206, in itself a considerable number, but certainly not even yet representing the whole of the ornithological fauna of Yünnan. As might be supposed, this fauna exhibits a mixed character, and partakes at once of that of Thibet, India, and Indo-China.

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It possesses, however, certain species belonging to itself, of which four had not hitherto been recorded, and the discovery of which is due to Prince Henry of Orleans. These are marked by an asterisk in the preceding list, and a few words must be devoted to their diagnosis.

CRINIGER HENRICI, n. sp.—Species near akin to that of the *Criniger gutturalis* (Bp.) of Sumatra, Borneo, Malay Peninsula, and Tenasserim, but distinguished from it by a larger size, different proportions in the remiges, and by the colour of the under part of the body, which is more strongly interspersed with yellow and almost develops into red beneath the lower tail-feathers. The inner edges of the wing are also brighter, of a yellowy or reddish white. Entire length of bird, 9.8 in.; of wing, from .390 to .45 in.; of primary remige, .108 in.; of tail, .433 in.; of beak (upper edge), .70 in.; of tarsus, .82 in.

This species is found at once in the south of Yünnan and the north of Tonkin. The above description has been taken from four specimens, male and female, of which one was killed on the 25th of March 1895 between Manhao and Ssumao (Yünnan) on the banks of the Black River, while the others were obtained by Prince Henry on a former expedition at Nam-Xong, Ban-Moi, and Hat-Hoa (Tonkin) on the 17th, 19th, and 25th of February 1892.

IXULUS ROUXI, n. sp.—Much resembles the *Ixulus flavicollis* (Hodgs.) of the Himalayan region in its system of colouring, but differs from it in the shade on the top of the head, which is of a deep brown slightly tinged with grey and not of a chestnut brown, also in its greater size and more developed wings. Entire length of bird, 5.59 in.; of wing, .255 in.; of tail, .211 in.; of beak, .39 in.; of tarsus, .74 in. I have, unfortunately, only had one specimen for examination, a female, killed on the 23rd of March 1895 in Yünnan, on the borders of the Ly-sien-kiang or Black River.

CHRYSOMITRIS AMBIGUA, n. sp.—A most interesting form, recalling in a striking manner certain Tarins of the New World, notably the *Chrysomitris notata* (Du Bus) of Central America, by its hood of dark, almost black hue, its green mantle, the green shade of yellow on the under parts of its body, the golden markings at the base of the tail, and by the large yellow pattern that pervades a chief part of the remiges and adorns the wings. The hood in this case, however, stops short beneath upon the chin and middle of the throat, the shoulder is of a duller green and not distinctly spotted with black, while the breast is instead flecked with greenish-brown; the tint on the abdomen also tends to green verging on the sides to russet grey, and not as in the other of a brilliant yellow; finally, the proportions are not the same as the *Chrysomitris notata*, those of the *Chrysomitris ambigua* being: entire length of bird, 5.11 in.; of wing, .314 in.; of tail, .200 in.; of beak, .39 in.; of tarsus, .354 in.

Four birds of this species were killed by the Prince, namely, one female at Miennung (Yünnan) on the 7th of May 1895; one male on the 13th of May at Yünchou, a little north of Miennung; one male and one female on the banks of the Yang-pi-kiang, an affluent of the Mekong, on the 23rd of May.

This species does not, however, appear rigidly confined to Yünnan, for in the numerous collection of birds recently sent to the Museum by Father Dejean from Tatsien-lou I have been confronted with the same Tarins, closely allied to birds exhibiting the exact characteristics of the Chinese greenfinch, of the *Chloris sinica* (L.), of which the Museum already possessed specimens obtained at Pekin and at Moupin by the Abbé A. David. But what is more curious, there exists in this same collection from Tatsien-lou all the transitions between the specimens resembling those I have just described under the name *Chrysomitris ambigua* and the specimens identical with the *Chloris sinica* of Moupin and Pekin. These transitions are manifested not only in a modification of the shoulder tint, which from green becomes a clear chocolate-brown, in the shade of the under parts, which passes from yellow-green to bright reddish-brown, and in the fading and gradual entire disappearance of the hood, but also in a thickening

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and shortening of the beak, which becomes wholly that of a greenfinch. As for the wings and tail, they undergo no change, these parts being already correspondingly coloured in both the *Chrysomitrис ambigua* and the *Chloris sinica*.

From these facts, based on the comparison of a series of fifty specimens, it might be concluded that the *Chloris sinica* and the *Chrysomitrис ambigua* constitute in reality only one and the same species, very variable, of which the old birds develop a green livery and black hood. But then how comes it that this black hood and this green livery have never as yet been observed in the many specimens of the *Chloris sinica* which naturalists have had under their inspection from the time of Linnæus, and which figure in the large museums of Europe? It seems more reasonable to me to regard the *Chrysomitrис ambigua* as a Yunnan species, the area of whose habitat is contiguous on the northern side with that of the *Chloris sinica*, and to suppose that on the confines of their respective regions the breeds, already closely allied, are subject to frequent crossing.

As I have already remarked, the two species *Chloris* and *Chrysomitrис* are extremely near akin; and it is an error, in my opinion, to arrange them as in the catalogue of the British Museum in two different tribes of the family of the *Fringillidae*. Already the *Chrysomitrис spinoides* (Vig.) of the Himalayas and Szechuen exhibits the plumage of a Tarin with the beak of a greenfinch.

ARBORICOLA HENRICI, n. sp.—*A. Torqueola affinis*, sed mento rufo, gula nigro maculata, tergo, caudae tecticibus rectricibusque dorsi modo transversim radiatis, abdominis lateribus castaneo colore carentibus distincta.

Entire length of bird, 10.03 to 12.59 in.; of wing, 5.11 to 5.90 in.; of tail, 2.16 to 2.55 in.; of beak, .78 in.; of tarsus, 1.49 in.

Hab. Tonkin and prov. Kuang-tri (Annam).

Crest for most part black; front and lower jaw fawn; neck speckled black on tawny; shoulder streaked transversely and regularly with black on olive, prolonged to the tail coverts and even as far as the rectrices, and not broken behind by triangular patches or bands as in the *Arboricola torqueola*; wings presenting same markings as in the latter species; breast brownish-red, more uniform than the *Arboricola torqueola* without the small white flecks; thighs verging towards olive-brown, with feathers marked by large terminal black patch preceded by a white one, but not speckled with chestnut; beak brown; feet red.

The foregoing description is taken from two specimens from different sources: one presented to the Museum by Prince Henry of Orleans, and obtained by him at Maisons (Tonkin) on the 20th of February 1892, in the course of his former travel in Indo-China: the other acquired by Father Renauld, and coming from the same province as the *Carpococcyx*, that is to say, the province of Kuang-tri (Annam). The first of these birds is indicated as a female, and is somewhat smaller in size than the other. Its beak is a little deformed, and the plumage slightly altered, so that, while detecting different characteristics from those of the *Arboricola torqueola*, I was satisfied to designate it in the collections of the Museum under the manuscript name of *Arboricola Henrici*, and postponed giving a description of the species, which immediately struck me as a new one, until I should have another specimen under my scrutiny. The arrival of this second example, moreover, admits of a considerable extension towards the south of the habitat area of the species, which is evidently to be found throughout the entire mountain and forest region that separates Annam from Laos.

In addition to the above species there are many others in Yunnan on which I should have wished to say a few words, but I hope to be able to investigate them in an ulterior work.

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3. LEPIDOPTERA

COLLECTED IN YÜNNAN

Classified by M. OBERTHÜR at Rennes

(1) RHOPALOCERA

Papilio Machaon, <i>Linnaeus.</i>	Dercas Wallichii, <i>Doubleday.</i>
„ Alcinous, <i>Klug.</i>	Acræa Vesta, <i>Fabricius.</i>
„ Chentsong, <i>Oberthür.</i>	Danaïs Chrysippus, <i>Linnaeus.</i>
„ Protenor, <i>Cramer.</i>	„ Genutia, <i>Cramer.</i>
„ Pammon, <i>Linnaeus.</i>	„ Tytia, <i>Gray.</i>
„ Lama, <i>Oberthür.</i>	„ Melaneus, <i>Cramer.</i>
„ Bianor, <i>Cramer.</i>	Melitæa Yuento, <i>Oberthür.</i>
„ Paris, <i>Linnaeus.</i>	Argynnis Niphe, <i>Linnaeus.</i>
„ Cloanthus, <i>Westwood.</i>	„ Laodice, <i>Pallas.</i>
„ Xuthus, <i>Linnaeus.</i>	Limenitis Elwesi, <i>Oberthür.</i>
„ Erithonius, <i>Cramer.</i>	Apatura Bieti, <i>Oberthür.</i>
„ Arcturus, <i>Westwood.</i>	„ Fulva, <i>Leech.</i>
„ Horatius, <i>Blanchard.</i>	„ Princeps, <i>Fixsen.</i>
„ Tamerlanus, <i>Oberthür.</i>	Charaxes Clitiphon, <i>Oberthür.</i>
„ Mandarinus, <i>Oberthür.</i>	„ Rothschildi, <i>Leech.</i>
Armandia Thaidina, <i>Blanchard.</i>	„ Menedemus, <i>Oberthür.</i>
Parmassius Imperator, <i>Oberthür.</i>	Araschnia Prorsoides, <i>Blanchard.</i>
Pieris Goutellei, <i>Oberthür.</i>	„ Davidi, <i>Poujade.</i>
„ Bieti, <i>Oberthür.</i>	Kallima Inachus, <i>Boisduval.</i>
„ Martineti, <i>Oberthür.</i>	Satyrus Merlini, <i>Oberthür.</i>
„ Gliciria, <i>Cramer.</i>	„ Palma, <i>Kollar.</i>
„ Belladonna, <i>Fabricius.</i>	Neope Agrestis, <i>Oberthür.</i>
Colias Fieldii, <i>Ménétriès.</i>	Erebia Polyphemus, <i>Oberthür.</i>
Gonepteryx Amintha, <i>Blanchard.</i>	Dejeania Bicolor, <i>Oberthür.</i>

(2) HETEROCHERA

Tropæa Selene, <i>Hübner.</i>	Ophideres Fullonica, <i>Linnaeus.</i>
Loepa Katinka, <i>Westwood.</i>	Calesia Hæmorrhœa, <i>Guenée.</i>
Ophideres Ancilla, <i>Cramer.</i>	Urapteryx crocopterata, <i>Kollar.</i>

4. PLANTS

List of Plants collected by the Expedition. (For localities the reader is referred to the dates in the text of the book.)

Arranged by M. A. FRANCHET

NOTE.—Names of species preceded by an asterisk are new: their descriptions will be published in the *Bulletin de la Société botanique de France*.

RANUNCULACEÆ

Clematis chrysocomoides, <i>Franch.</i> , 10 June.	Ranunculus pennsylvanicus, <i>Poir.</i> , 15 March.
„ florida, <i>Sieb. Zucc.</i> , 11 July.	Trollius patulus, ¹ <i>Salisb.</i> , 11 July.
Anemone rivularis, <i>Hamilt.</i> , 1 May.	*Trollius yunnanensis, <i>Franch.</i> , 13 Sept.
„ celestina, <i>Franch.</i> , 19 June.	*Aconitum pumilum, <i>Franch.</i> , 14 Sept.

MAGNOLIACEÆ

Michelia yunnanensis, *Franch.*, 27 February.

¹ Petals much shorter than stamens; the stems attaining 27.55 in. Plant altogether new for the region.

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PAPAVERACEÆ

**Meconopsis multicaulis*, *Franch.*, 14 September.

CRUCIFERACEÆ

Cardamine sylvatica, *Link.*, 9 March.

FUMARIACEÆ

<i>Corydalis Raddeana</i> , <i>Regel.</i> (?), 11 July.	<i>Corydalis echinocarpa</i> , <i>Franch.</i> , 12 Sept.
„ <i>echinocarpa</i> , <i>Franch.</i> , 2 March	„ sp. „ 12 Sept.
at Loutsou-chin.	

VIOLARIÆ

<i>Viola Patrinii</i> , <i>Patrin.</i> , 17 June.	<i>Viola japonica</i> , <i>Langs.</i> , 28 February.
„ <i>diffusa</i> , <i>Ging.</i> , 5 March.	„ <i>Delavayi</i> , <i>Franch.</i> , 23 May.

POLYGALACEÆ

**Polygala yunnanensis*, *Franch.*, 27 February.

CARYOPHYLLACEÆ

<i>Silene rubicunda</i> , <i>Franch.</i> , 17 June.	| <i>Cerastium triviale</i> , <i>Link.</i> , 5 March.
Stellaria uliginosa, <i>Murr.</i> , 9 March.	

HYPERICACEÆ

<i>Hypericum patulum</i> , <i>Thunb.</i> , 27 February and 23 May.	
„ sp.	15 March.

GERANIACEÆ

<i>Geranium nepalense</i> , <i>Sweet</i> , 28 Feb.	<i>Geranium</i> sp., 9 March.
„ <i>yunnanense</i> , <i>Franch.</i> , 11 July.	<i>Oxalis corniculata</i> , <i>L.</i> , 12 February.
„ <i>palustre</i> , <i>L.</i> , var., 11 July.	<i>Biophytum sensitivum</i> , <i>DC.</i> , 18 April.
„ <i>strigosum</i> , <i>Franch.</i> , var., 18 June.	<i>Impatiens</i> sp., 29 April.
	<i>Averrhoa Carambola</i> , <i>L.</i> , 30 March.

RUTACEÆ

Bœnninghausenia rutæfolia, *Rchb.*, 11 July.

CELASTRINACEÆ

Euonymus sp., 14 September.

CEDRELACEÆ

Munronia Delevayi, *Franch.*, 20 May.

LEGUMINOSÆ

<i>Crotalaria ferruginea</i> , <i>Grah.</i> , 15 March.	<i>*Lespedeza sericephylla</i> , <i>Franch.</i> , 9 March.
„ 29 April.	<i>Desmodium parvifolium</i> , <i>DC.</i> , 9 March.
<i>Lotus corniculatus</i> , <i>L.</i> , 15 February.	<i>Flemmingia Grahamiana</i> , <i>Arn.</i> , 15 Feb.
<i>Guldenstaedtia yunnanensis</i> , <i>Franch.</i> , var., 19 June.	<i>Dalbergia</i> , 18 June.
<i>Astragalus Sinicus</i> , <i>Lamk.</i> , 1 May.	<i>Bauhinia Faberi</i> , <i>Oliv.</i> , 15 April.

ROSACEÆ

<i>Spiræa lanuginosa</i> , <i>Franch.</i> , 11 July.	<i>*Potentilla ampliflora</i> , <i>Franch.</i> , 14 Sept.,
„ <i>japonica</i> , var. <i>ovalifolia</i> , 15 Feb.	11 July.
<i>Princeps utilis</i> , <i>Royé</i> , 15 Feb.	„ <i>peduncularis</i> , <i>Don.</i> , 19 June.
<i>Rubus rosæfolius</i> , <i>Lin.</i> , 15 March.	„ <i>leuconota</i> , <i>Don.</i> , 11 July.
<i>Fragaria indica</i> , <i>L.</i> , 15 March.	<i>Agrimonia Eupatoria</i> , <i>L.</i> , 24 May.
<i>Potentilla Kleiniana</i> , <i>Wight.</i> , 5 March.	<i>Pyrus Malus</i> , <i>L.</i> , 24 April.

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SAXIFRAGACEÆ

* <i>Astilbe Henrici</i> , <i>Franch.</i> , 11 July.	<i>Deutzia staminea</i> , <i>Br.</i> , 15 March.
<i>Saxifraga</i> sp., 14 July.	" <i>glomeruliflora</i> , <i>Franch.</i> , 24 May.
<i>Dichroa febrifuga</i> , <i>Lour.</i> , 27 April.	<i>Philadelphus coronarius</i> , <i>L.</i> , var., 23 May.

CRASSULACEÆ

<i>Bryophyllum calycinum</i> , <i>Salsb.</i> , 12 February.

LYTHRARIACEÆ

<i>Woodfordia floribunda</i> , <i>Salsb.</i> , 9 March.

CÖNOTHERACEÆ

<i>Epilobium angustifolium</i> , <i>Lamk.</i> , 11 July.	<i>Epilobium hirsutum</i> , <i>L.</i> , 24 April.
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PASSIFLORACEÆ

<i>Passiflora yunnanensis</i> , <i>Franch.</i> , 19 March.
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MELASTOMACEÆ

<i>Osbeckia</i> sp., 12 September.	<i>Blastus</i> sp., 14 October.
<i>Allomorpha pauciflora</i> , <i>Benth.</i> , 12 Sept.	

UMBELLIFERÆ

<i>Oenanthe linearis</i> , <i>Wall.</i> , 24 April.

* <i>Pleurospermum heracleifolium</i> , <i>Franch.</i> , 11 July.

CORNACEÆ

<i>Cornus capitata</i> , <i>Wall.</i> , 19 June.
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RUBIACEÆ

<i>Wendlandia glabrata</i> , <i>DC.</i> , 11 February.	<i>Ophiorrhiza japonica</i> , <i>Blume</i> , 12 Sept.
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LONICERÆ

<i>Lonicera acuminata</i> , <i>Wall.</i> , 19 June.	* <i>Viburnum parvifolium</i> , <i>Franch.</i> , 1 May.
" <i>longiflora</i> , <i>DC.</i> , 15 April.	" sp., 18 March.
<i>Leycesteria formosa</i> , <i>Wall.</i> , 20 May.	

VALERIANACEÆ

<i>Valeriana Hardwickii</i> , <i>Wall.</i> , 1 May.	<i>Patrinia scabiosæfolia</i> , <i>Fisch.</i> , 23 Sept.
" <i>Wallichii</i> , <i>DC.</i> , 18 March.	

DIPSACEÆ

<i>Morina Delavayi</i> , <i>Franch.</i> , 11 July, 17 June.

COMPOSITÆ

<i>Aster trinervius</i> , <i>Roxb.</i> , 15 March.	<i>Vicoa auriculata</i> , <i>DC.</i> , 9 March, 2 May.
" sp., 15 March.	<i>Gnaphalium multiceps</i> , <i>DC.</i> , 1 May (this plant is cooked and eaten by the natives).
" <i>Bietii</i> , <i>Franch.</i> , <i>Journ. de bot.</i> , x. p. 373.	<i>Gnaphalium (Anaphallis) nubigenum</i> , <i>DC.</i> , var. <i>laxum</i> .
<i>Erigeron Alpinus</i> , <i>L.</i> , 24 May.	<i>Gnaphalium (Leontopodium) alpinum</i> , <i>Scop.</i> , 1 May.
" " var. <i>Roylei</i> , <i>DC.</i> , 11 February.	<i>Gnaphalium (Leontopodium) Chinense</i> , <i>Fr.</i> , 14 September.
<i>Blumea glomerata</i> , <i>DC.</i> , 12 February.	
" <i>lacera</i> , <i>DC.</i> , 15 March.	

APPENDIX B

- Gnaphalium (Leontopodium) Dedeckensii,
Bur. and Franch., 18 June.
 *Gnaphalium (Leontopodium) tenuifolium,
Fr., 19 May, 27 February.
 Emilia sonchifolia, *DC.*, 12 February.
 Gynura primatifida, *DC.*, 15 March.
 Senecio Oldhamianus, *Maxim.*, 16 Feb.
 " phalacrocarpus, *Ham.*, 14 Sept.
 " Principis *Franch., Journ. de bot.*,
 x. 412.
 * " tenuipes, *Franch.*, 11 July.
- Saussurea lingulata, *Franch., Journ. de bot.*, x. p. 423.
 Hemistepta lyrata, *Bunge.*, 18 March.
 *Cnicus paucisquamatus, *Franch.*, 1 May.
 Gerbera piloselloides, *Cass.*, 29 April.
 " Chinensis, *Franch.*, 15 March.
 Lactuca grandiflora, *Franch.*, 30 July, 15
 September.
 " sp., 12 March.
 Crepis japonica, *Benth.*, 12 March.

CAMPANULACEÆ

- | | |
|---|--|
| Adenophora sp., 12 July.
Codonopsis convolvulacea, <i>C. Kurz.</i> , 12
July. | Campanumæa pilosula. <i>Franch.</i> , 12
September. |
|---|--|

ERICACEÆ

- | | |
|--|--|
| Vaccinium Donianum, <i>Wight.</i> , 19 March.
Pieris ovalifolia, <i>Don.</i> , 29 April.
Rhododendron ciliocalyx, <i>Franch.</i> , 9 May.
* | Rhododendron indicum, <i>L.</i> , 18 March,
27 February.
" sp., 15 March.
" Delavayi, <i>Franch.</i> , 18
March. |
| " oxyphyllum, <i>Franch.</i> , 30
March. | |

PLUMBAGINACEÆ

- | | |
|---|--|
| Plumbago Zeylanica, <i>L.</i> , 18 March.
*Primula cyclaminifolia, <i>Franch.</i> , 18 March.
* | Primula denticulata, <i>Sm.</i> , 15 February.
" sp., 16 February.
*Lysimachia plicata, <i>Franch.</i> , 24 May. |
| " microdonta, <i>Franch.</i> , 15 Sept.
" Poissoni, <i>Franch.</i> , 2 May. | |

STYRACÆ

- | | |
|--|---|
| Styrax ser. ulatum, <i>Roxb.</i> , 30 May. | \| Symplocos cratægoides, <i>Ham.</i> , 2 May. |
|--|---|

OLEACEÆ

- | | |
|---|---|
| Forsythia suspensa, <i>Vahl.</i> , 15 February.
Jasminum sp., 4 March. | Jasminum sp., 15 February.
" sp., 9 March. |
|---|---|

APOCYNACEÆ

- Beaumontia grandiflora, *Wall.*, 14 April.

LOGANIACEÆ

- Budleia asiatica, *L.*, 27 February.

GENTIANACEÆ

- | | |
|--|--|
| Gentiana tenella, <i>Fores.</i> , 23 September.
" delicata, <i>Ham.</i> , 23 September.
" decemfida, <i>Buch.</i> , 29 April.
" serra, <i>Franch.</i> , 15 February.
" Elwesii, <i>Clarke</i> , 23 September.
" " 14 September. | Crawfurdia fasciculata, <i>Wall.</i> , 14 Sept.
* " grandiflora, <i>Franch.</i>
Swertia, 12 September.
" 12 September.
Italienia elliptica, <i>D. Don.</i> , 12 September. |
|--|--|

BORAGINEÆ

- | | |
|--|--|
| Cynoglossum furcatum, <i>Wall.</i> , 15 March,
16 February. | Trigonotis peduncularis, <i>Maxim.</i> , 12 Sept.
Myosotis sylvatica, <i>Stoffm.</i> , 11 July. |
|--|--|

FROM TONKIN TO INDIA

CONVOLVULACEÆ

<i>Argyreia</i> sp., 15 April.	Evolvulus alsinoides, <i>L.</i> , 9 March.
<i>Ipomœa quissata</i> , <i>Rob. Br.</i> , 4 July.	

SCROPHULARIACEÆ

<i>Brandita Hancei</i> , <i>Hook.</i> , 15 March.	Pedicularis Elwesii, <i>Hook.</i> , 14 September.
<i>Torrenia peduncularis</i> , <i>Benth.</i> , 23 Oct.	„ 24 May.
<i>Veronica</i> , 11 July.	„ 11 July (<i>ter.</i>).
<i>Phteirosppermum tenuisectum</i> , <i>Bur. and Franch.</i> , 18 June.	

GESNERIACEÆ

<i>Æschynomene acuminatus</i> , <i>Wall.</i> , 12 July.	
---	--

BIGNONIACEÆ

<i>Incarvillea Delavayi</i> , <i>Franch. and Sav.</i> , 18 June.	
--	--

ACANTHACEÆ

<i>Baleria</i> sp., 9 May.	Asystasia sp., 5 March.
<i>Peristrophe</i> sp., 28 March.	Strobilanthes sp., 11 July.

LABIATÆ

* <i>Plectranthus Yunnanensis</i> , <i>Franch.</i> , 18 June.	Scutellaria rivularis, <i>Wall.</i> , 15 April.
* <i>Elsholtzia theezans</i> , <i>Franch.</i> , 15 March (used instead of tea by the natives).	* <i>Salvia falciflora</i> , <i>Franch.</i> , 18 June.
<i>Calamintha umbrosa</i> , <i>Benth.</i> , var. <i>microphylla</i> , 17 June.	* <i>„ platycalyx</i> , <i>Franch.</i> , 11 July.

POLYGONACEÆ

<i>Polygonum Bistorta</i> , <i>L.</i> , 11 July, 27 February.	
---	--

LAURACEÆ

<i>Litsæa</i> sp., 5 March.	
-----------------------------	--

THYMELÆACEÆ

<i>Stellera Chamœjasme</i> , <i>L.</i> , 27 February.	Stellera sp., 19 June.
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EUPHORBIACEÆ

<i>Euphorbia Jolkini</i> , <i>Boiss?</i> 5 March.	Euphorbia sp.
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AROIDEÆ

<i>Arisæma</i> sp., 17 June.	
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ORCHIDACEÆ

(Arranged by M. Finet)

<i>Liparis Bootanensis</i> , <i>Griff.</i>	Dendrobium Pierardi, <i>Roxb.</i> , 3, 12, 20 April.
<i>Dendrobium Dalhousianum</i> , <i>Wall.</i> , 3 April.	„ capillipes, <i>Reich.</i> , 5 April.
„ <i>aggregatum</i> , <i>Roxb.</i> , 28 April.	„ <i>chrysotomum</i> , <i>Lindl.</i> , 18 March, 17 April.
„ <i>Parishii</i> , <i>Reichs.</i> , April.	„ sp.
„ <i>longicornu</i> , <i>Lindley.</i>	Bolbophyllum sp. nov.
„ <i>fimbriatum</i> , <i>Hooker.</i> , 19 October.	Cirrhopetalum sp. nov., 12 September.
	Phajus grandifolius, <i>Lour.</i> , 2 April.

APPENDIX B

Bletia hyacinthina, <i>A. Brown</i> , 18 and 19 June.	Vanda parviflora, <i>Lindl.</i> , 12 and 17 April.
Anthrogonium gracile, <i>Wall.</i> , 18 October.	Goodyera procera, <i>Stook.</i> , 30 March.
Cœlogyne barbata, <i>Griff.</i>	“ secundifloræ <i>affinis</i> .
“ nitida, <i>Lindl.</i>	Pogonia sp. nov., 12 July.
“ ochracea, <i>Lindl.</i> , 29 October.	Cephalanthera falcata, <i>Blume</i> , 20 March.
“ præcox, <i>Lindl.</i>	Epipactis latifolia, <i>Swartz</i> , 11 July.
“ fimbriata, <i>Lindl.</i> , 3 September.	Habenaria sp., 4 July.
Calanthe sp., 29 September.	“ sp., 4 July.
“ sp., 11 July (<i>bis</i>).	“ sp., 11 July.
“ sp.	“ sp., 23 March.
Arundina sp.	“ sp., 19 September.
Cymbidium giganteum, <i>Wall.</i> , 6 and 12 April.	“ sp., 18 June.
“ grandiflorum, <i>Griff.</i>	“ sp., 21 June.
“ xiphiofolio <i>affinis</i> , April.	“ sp.
Vanda teres, <i>Lindl.</i> , 13 April.	Satyrium nepalente, <i>Don.</i> , 13 Sept.
	Arethusantha, <i>Gen. nov.</i>
	Orchis sp., 12 July.

IRIDACEÆ

Pardanthus Chinensis, <i>Ker.</i> , 5 March.	Iris Sibirica sp.
Iris Sibirica, <i>L.</i> , forma, <i>hæmatophylla</i> , 19 June.	

SCITAMINEÆ

Roscoea purpurea, <i>Sm.</i> , 23 May.	Alpinia sp., 15 February.
“ lineariloba, <i>Franch.</i> , 24 April.	“ sp., 27 April.

*Cantleya yunnanensis, *Franch.*, 19 June.

HYPOXIDEÆ

Hypoxis aurea, *L.*

ILÆMODORACEÆ

Aletris laxiflora, *Franch. and Bur.*, 2 May.

LILIACEÆ

Paris polyphylla, <i>Sm.</i> , 20 May.	Allium odorum, <i>L.</i> , 12 September.
Olygobotrya Henryi, <i>Oliv.</i> , 11 July.	“ sp., 14 September.
Ophiopogon japonicus, <i>Gawl.</i> , 17 June.	Hemerocallis fulva, <i>L.</i> , var. <i>angustifolia</i> , <i>Baker</i> , 3 May.
“ sp., 20 May.	Tofieldia Himalaica, <i>Baker</i> , 12 June.
*Lilium Henrici, <i>Franch.</i> , 11 July.	Disporum pullum, <i>Salish.</i> , 24 April.
“ cordifolium, <i>S. Z.</i> , 21 June.	Veratrum album, <i>L.</i> , var., 11 July.
“ Delavayi, <i>Franch.</i> , 19 June.	Streptopus elegans, <i>Franch.</i> , 11 July.
“ roseum, <i>Wall.</i> , 11 July.	Juncus sp., 11 July.
Nomocharis pardanthina, <i>Franch.</i> , 19 June.	

COMMELYNACEÆ

Streptolirion volubile, *Edgw.*, 12 September.

CYPERACEÆ

Carex atrata, *L.*, 15 September.

LYCOPODIACEÆ

Lycopodium clavatum, *L.*, 27 January.

Lycopodium complanatum, *L.*, 27 Feb.

FROM TONKIN TO INDIA

II

VOCABULARIES

COLLECTED ON THE ROUTE

(Explanation of the Numbers of the Vocabularies)

1. *Poula Vocabulary*, taken on the 2nd of March at Loutche-Hsien ; remarkable for the initial *ch* like the German nasal *ch* ; sometimes the finals are scarcely sounded.
2. *Hou-Ni Vocabulary*, taken on the 3rd of March at Bakopo ; like the Poulas, they add *louma* to the words, perhaps signifying *it is called*, or perhaps only as a suffix.
3. *Lolo Vocabulary*, taken the 6th of March at Cheu-pe-te.
4. *Yayo Vocabulary* (Lintindjou), taken the 7th of March.
5. *Lola Vocabulary*, taken the 10th of March at Machatsa.
6. *Pai Vocabulary*, taken the 10th of March at Pingantchâi.
7. *Lolo Vocabulary*, taken the 17th of March at Ketcheu.
8. *Hou-Ni Vocabulary*, taken the 18th of March at La Mi. The Hou-Nis (who call themselves Hans) have certain sounds which they pronounce like *eur* in French *sœur*.
9. *Hou-Ni Vocabulary*, taken the 23rd of March at Pitchu.
10. *Hatou Vocabulary*, taken the 25th of March at Panhoutse.
11. *Yayo Vocabulary* (Lintindjou), taken the 1st of April at Takouelin. Suffixes *nom* or *lom* after the numbers noticeable.
12. *Lolo Vocabulary*, of Nalipa, taken the 9th of April at Ssumao.
13. *Chui Pai Vocabulary*, of Kouen-fang (same as the Hin Païs), taken the 15th of April.
14. *Lokai Vocabulary*, 20th April. (The Lokaïs call themselves Lachous.)
15. *Lolo Vocabulary*, 20th April, at Chian-na-ling. (The Lulos call themselves Toutans.)
16. *Pou Ma Vocabulary*, at Pouto, 29th April. (Seems to approach the Païs.)
17. *Lokai Vocabulary*, at Koueng-fang, 1st May. (Very clearly pronounced.)
18. *Minchia Vocabulary*, 20th June, at Kian-pin.
19. *Lissou Vocabulary*, 3rd July, at Lou-kou.
20. *Tono Vocabulary*, 15th July, at Tono. (Resembles Lissou.)
21. *Petsen or Han Lama Vocabulary*, 23rd July. (Very like Minchia.)
22. *Pe Lissou Vocabulary*, 8th August.
23. *Mosso Vocabulary*, at Ngaiwa, 14th August. (The Mossos call themselves Nachis.)
24. *Loutse Vocabulary*, taken at Tsekou in August. (The Loutses call themselves Melams ; the Thibetans style them Ngias, or imbeciles.)
A Complement to the Loutse Dialect will be found at the end of the Vocabularies.
25. *Thibetan Vocabulary*, at Tsekou, end of August.
26. *Loutse Vocabulary*, taken from some Loutses at Tamalou, 10th October.
27. *Kioutse Vocabulary*, at Tukiu Mu.
28. *Mishmi Vocabulary*, at Bouniang in December.
29. *Kioutse Vocabulary*, taken from the Sing-leng folk, 13th December. Called by the Païs and the English Khanungs, by themselves Metouans.
30. *Singpho Vocabulary*, at Daphagang in December.

APPENDIX B

NOTE.—Vowels employed in subjoined Lists are to be considered as having their continental value.

POUЛА.		HOU-НІ		ЛОЛО.		YАВО.		ЛОЛА.		PAI.		ЛОЛО.		HOU-НІ.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Boat	Neing	Gniu po	Anngue	Wongbou	La	Anngua	Heu	Khai	A	...	...	Nioupeu	...	...
Buffalo	Abe	...	Zoneu	...	Atasei	...	Akeujø	...	Tong	Loue	...	Zako	...	Katsa	
Chicken	Aleumene	Salkouza	Ji	Tong	...	...	Guin	...	...	...	...	Mitaba	...	Granau
Child	Dji	Gueu	Amzone	Atasakiene	...	...	Amelio	...	...	...	...	Hatsi	...	Hatsi
Copper	Mitanmannin	Zami	Guine	...	Tiehe	...	Hibeu	Kang	...	...	...	Akhu	...	Akhu
Daughter	Akou	Tino	...	Tchi	...	Klou	...	Ma	...	...	...	Lopa	...	Nabu
Day	...	Akhu	Nop	Monôme	Mopa	...	...	Vou	...	...	...	Mitsa	...	Mitsa
Deer	Tchi	Nato	Mi	Ni	...	...	...	Lin	...	...	...	Gna	...	Gna
Dog	Nape	Mitsa	Nedou	Moi	Nedoua	...	...	Oueta	...	...	...	Ata	...	Ata
Ears	Mikha	Alia	Fa	Fa	Tchamiapo	...	...	Ate	...	...	...	Atsa	...	Atsa
Earth	Nichi	Ada	Ngone	Tao	Sitoua	...	...	Fai	...	...	...	Aku	...	Aku
Eyes	Ipe	Mitcha	Sito	Tchipica	Kha	...	...	...	...	...	...	Aa	...	Aa
Father	Mi	Keu	Gueupe	Je	Kai	...	...	...	...	...	...	...	...	...
Fire	Tchi	Ha	Jc	Tai	Fa	...	...	...	...	...	...	Cho	...	Cho
Foot	Je	...	...	Gone	Lao	...	...	...	...	...	...	Ala	...	Ala
Fowl	Ii	Outiou	Chetu	Sam	Lao	...	...	...	...	...	...	Among	...	Among
God	...	La	Nepa	Pou	Le	...	...	...	...	...	...	Lahau	...	Lahau
Gold	Chic	Mô	Mouni	Ma	...	...	...	...	...	...	...	Chia	...	Chia
Hand	Lie	...	...	...	...	...	...	...	...	...	...	Achan	...	Achan
Horse	Mou	...	...	...	...	...	...	...	...	...	...	(aspirate)	...	(aspirate)
House	Chie habie	Io	He	Piao	...	...	...	...	...	...	...	Koboumo	...	Koboumo
Iron	Cho(aspirate)	So	Tenji	Guia	...	...	...	...	...	...	...	...	...	...
Man	Quatse	Tsotia	Tsatuai	Atamone	Tsotita	...	...	...	...	...	...	Tita	...	Tita
Month	...	Bâcha	Koboumo	...	...	...	...	...	...	...	...	Tchamiamo	...	Tchamiamo
Moon	Saba	Ama	Mopai	...	...	...	...	...	...	...	...	...	...	...
Mother	Ima	Hote	Beu	...	...	...	...	...	...	...	...	...	...	...
Mountain	Boma	Nepomacho	Nipi	...	...	...	...	...	...	...	...	...	...	...
Mouth	Nipi	Nepo	Nouka	...	...	...	...	...	...	...	...	...	...	...
Nose	Nako	Tibia	...	...	...	...	...	...	...	...	...	...	...	...
Numerals	...	Hangi	...	...	...	...	...	...	...	...	...	...	...	...
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.

FROM TONKIN TO INDIA

POULA.		HOU.-NI.		LOLO.		YAYO.		LOIA.		PAI.		LOLO.		HOU.-NI.	
Numerals															
2	Ni	Nobia	Gni	Pou	Nita	So	Ni	Gni	Sa	Sam	...	...	...	...	...
3	So	Koubia	Sen	Pici	Santa	Sam	Chili	Sen	Sam	Seu	...	...	...	...	...
4	Sia	Ubia	Chi	Pia	Chita	...	...	...	...	...	...	...	...	...	...
5	Ngang	Nabia	Ngo	Kio	Quonta	Ha	...	...	...	...	...	...	...	...	...
6	Kfou	Koubia	Tchou	Gni	Tchouta	Ho	...	...	...	...	...	...	...	...	...
7	Chi	Seubia	Chen	Iêt	Chlita	Hêt	...	...	...	...	...	...	...	...	...
8	Chicé	Chibia	Hi	Dou	Nhita	Piet	...	...	...	...	...	...	...	...	...
9	Kouou	Onibia	Ko	Sap	Kutat	Kao	...	...	...	...	...	...	...	...	...
10	Tsen	Tsebia	Tse	Sapiat	Tseuta	Sip	...	...	...	...	...	...	...	...	...
11	Tsenting	Tsetibia	Tseti	Sapniei	Tseuita	Sipie	...	...	...	...	...	...	...	...	...
12	Tseuni	...	...	Sapan	...	...	...	...	...	...	...	...	...	...	...
13	...	...	...	Sapei	...	...	...	...	...	...	...	...	...	...	...
14	...	...	...	Sapnuong	...	...	...	...	...	...	...	...	...	...	...
15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	Tahane	Ticha	Guitse	Sapgo	Nitsenta	Sao	...	...	...	...	...	...	...	...	...
100	...	...	Tienhong	Te	Tinghota	Haineu	...	...	...	...	...	...	...	...	...
200	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,000	Itiao(Chinese)	Titang	Tchitang	Appine	Tito	Pannon	...	...	...	...	...	...	...	...	...
10,000	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ox	Nie	Niou	Gni	Wong	Nien	...	...	...	...	...	...	...	...	...	...
Panther	Ai	Azeu	Djin	Tiane	Modjekone	...	...	...	...	...	...	...	...	...	...
Pork	Oue	Gá	Vé	Toung	Ve	...	...	...	...	...	...	...	...	...	...
Rice	Mia	Tsepou	Tchetou	Mai	Tchechou	...	...	...	...	...	...	...	...	...	...
Sheep	Mété	Ocha	Tchermo	lóme	Tchimo	...	...	...	...	...	...	...	...	...	...
Silver	Chlou	...	Pi	...	...	...	...	...	...	...	...	...	...	...	...
Sky	Montâ	...	Hô	...	...	...	...	...	...	...	...	...	...	...	...
Stone	Tch. ipi	...	Achlo	...	...	...	...	...	...	...	...	...	...	...	...
Sun	Montsao	...	Nama	...	...	...	...	...	...	...	...	...	...	...	...
Tiger	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

APPENDIX B

FROM TONKIN TO INDIA

	9 HOU-NI.	10 HATOU.	11 YAYO.	12 LOLO.	13 CHUI PAI.	14 LOKAM.	15 LOO.	16 POU MA.
Cup	Lamia	Iami	...	Sa	...	Zamino	Mejo	...
Daughter	Tino	(A)chicé (this	...	Anoi	...	Tigni	Tigni	...
Day	Hatchié	(A)chicé (this	A is some-	Kumdai	...	Chatse	Tienia	Monseugni
Deer			times left					lak
Dog	Akhou	Akhou		Klou	Tche	Ma	Phu	Tcho
Door	...	...		...	Ou	...	...	...
Duck	Aha	Apé		Apa	Loupa	Piet	Apé	...
Ears	Nabo	Napou		Monom	Mi	...	Napoutchi	...
Earth	Mitsa	Mitsa		Ni	Line	Oua	Oua	Ioc
Eyes	Meneu	Matzeu		Maia	Nuita	...	Mida	Panthai
Father	Ada	Ato		Fa	Po	...	Midou	Ngrai
Fire	Adza	Mi		To	Fai	...	Abo	Ounia
Fish	...	...		...	...	...	...	Nao
Flat	...	...		...	...	...	...
Flint	...	...		...	...	...	...
Foot	Akeu	Ako		...	...	...	...
Fowl	...	Pomo		...	...	...	...
God	Ponkhu	...		Fuipe	Nietsi	...	...
Gold	Sou	Seu		Som	Chieu	Ham	Patso	Poussa
Goose	...	...		...	...	...	...	(Chinese)
Grease	Hatchié	Atsou		...	...	...	...	Sai
Green	Mibon	Mipen		...	...	...	...	Kam
Gun	...	...		...	...	...	...	...
Hair	(animal)			loungtoung	Tsiang	...	...	...
Hand	Lang	Ala		...	...	...	...	...
Hat	...	...		Pou	Lé	Mhu	Lakho	Ti
Honey	...	...		...	...	...	...	...
Horse	Amo	...		...	...	...	...	...
Hot	Loulolhong	Outse		...	...	...	...	...
House	Nikho	Iouka		...	...	...	...	...

APPENDIX B

Iron	.	Do'ma	Si	Ia	Imo	Liga	Chou	Temé	Angac
King	.	Medje	... Miasa	Djou	Aré	Pa	Ato	...	Sac
Knife	.	Kanicha (Chinese)	...	...	...	...	...	...	...
Lance	.	T'sama	Eami	Tsongpou	Afeu	Mousa	Lawai	Vabé	Tienlue
Lard	.	Hadjio	Hadjia(tico)	Manteun	Medjo	Kounzai	Hoka	Tchapo	Concoute
Left	.	...	...	...	...	...	...	...	...
Linen	.	...	...	...	...	...	...	...	...
Man	.	Meat	...	...	...	...	...	...	...
Milk	.	Milk	...	...	...	...	...	...	...
Mouth	.	(As in Chinese)	Pala	Laa	Hobomo	Denna	Hapa	Chobo	Nikia
Moon	.	Bala	Ama	Io'	Amo	Mié	Ava	Amo	Nai
Mother	.	Ama	Mitsa	Kegm	Beu	Kouang	Moumi	Mide	Pri
Mountain	.	Poisang	Ami	Yêt	Nepi	Soup	Moko	Mikou	Dote
Mouth	.	Hané	Lotzeu	Lo	...	...	...	...	...
Mule	.	{ Ano, horse Lotzeu, mule }	Mitchi	Dom	Moutchi	Moupo	Amitchi	...	...
Night	.	Mitchi	Natou	Poutsong	Nouben	Nako	Neubi	...	...
Nose	.	Namé	...	...	...	...	...	...	...
Numerals	.	1	Timo	A	Ti	Neung	Tin	Leun	...
	.	2	Nimo	Nima	Gni	Song	Neu	Song	...
	.	3	Semo	Soma	Sa	Sin	Sina	Sam	...
	.	4	Humo	Ima	Chi	Si	Sinal	Si	...
	.	5	Nigamo	Loma	Ngo	Si	Ngai	Ligni	...
	.	6	Koumo	Kouma	Tia (lon)	Ha	Ngra	Nogni	...
	.	7	Chiono	Sema	Tchou	Ho	Ko	Tchogni	...
	.	8	Runo	Chiema	Tiou (lon)	Tielo	Cha	Chigni	...
	.	9	Tsimo	Pouima	Hé	Pict	Héa	Hegni	...
	.	10	Tsimo	Tiema	Dou	Kao	Koké	Kugni	...
	.	11	Tsetimo	Tsitiema	Sop	Sip	Titchi	Tsigni	...
	.	20	Nitsimo	Nitsi	Sopa	Sipié	Tichitin	Tsitigni	...
	.	100	Tiha	Nisop	Nisop	Sao	Nitchi	Nitso	...
	.	200	...	Apé	Tiho	Houai	...	...	...
	.	1,000	...	...	...	...	...	...	...
	.	10,000	...	...	...	...	...	...	...
	.	Opium	...	...	...	...	...	...	...
	.	Ox.	...	Miniou	Ngong	Gni	Ouo	...	Niousai

FROM TONKIN TO INDIA

9 HOU.-NI.	10 HATOU,	11 YAYO.	12 LOLO.	13 CHUI PAÜ.	14 LOKAI.	15 LOLO.	16 POU MA.
Palm-tree	Hazeu	Diane	Zi . . . . .	... . . . .	Apoubé	Ima	Arai
Panther	Lo	Toung	Ve	Nai	Oua	Ve	Li
Pig	Iacou	Ponboulo	Akole	Lien	Moujetuo	Amouho	Lé(ha) (?)
Pipe	Aha	Bouiti	Neu	Kao	Palagni	Megni	Ngou
Pork	Ouedhou	Mai	Keiou	Mouhoa	Tsaka	Tchipeu	Tiensap
Rain	Mielia	Tsaipou	Atou	Latchai	Lobe	Awou	Ngroang
Red	Iousou	Lamoua	Lo	Loka . . . . .	... . . . . .	... . . . . .	... . . . . .
Rice	Tsepon	Houpo . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Right	Tsala	Hako . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
River	Mitsa	Daou	Tso	Keu	Alai	Tcholai	Plou
Road	Kama	Tsadzeu . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Salt	Tiadeu . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Salt (rock)	Salt (rock) . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Saltpetre . . . . .	... . . . . .	(A)tsé (this A is sometimes left out)	Young	Matchi	Atcheu	Atcheu	Pe
Sand	Atche . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Sheep . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	Ala	Loma . . . . .	... . . . . .
She-goat . . . . .	... . . . . .	Koyo	Tou	Nine	Pou	Piou . . . . .	... . . . . .
Shoes . . . . .	... . . . . .	Pou	Mi	Mn	Fa	Guesin	Moul
Sieve	Poudie	M(ou) (?)	Goun . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Silver . . . . .	... . . . . .	Poulouche . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Skin . . . . .	... . . . . .	Soul . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Sky . . . . .	... . . . . .	Stone . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Smoke . . . . .	... . . . . .	Stream . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Snow . . . . .	... . . . . .	Sugar . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Soul . . . . .	... . . . . .	Summer . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Stone . . . . .	... . . . . .	Sun . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Stream . . . . .	... . . . . .	Table . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Sugar . . . . .	... . . . . .	Thread . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Summer . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Sun . . . . .	... . . . . .	Neuma . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Table . . . . .	... . . . . .	Paun . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .
Thread . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .	... . . . . .

APPENDIX B

¹ Signi is perhaps a suffix.

² Add the particle "loma" like the Lotos.

FROM TONKIN TO INDIA

	¹⁷ LOKAI.	¹⁸ MINCHIA.	¹⁹ LISSOU.	²⁰ TONO.	²¹ PETSEN or HAN LAMA.	²² PE LISSOU.	²³ MOSO.	²⁴ LOUISE.
Cotton .	Sala .	Hochi .	Sala .	Tavou .	Niutsini .	Ami .	Mizuzu .	...
Cup .	Zami .	Niotzeho .	Teugni (1 day)	Sounnizo .	Kouanié(1 day)	Gnié .	Digni (1 day)	...
Daughter .	Tigni .	Agni .	Tse .	Anmin .	Tavo .	Tse .	Tchoua .	Poumakielra
Day .	Keuzeu .	Malou .	Ana .	Mahou(Chin.)	Koua .	Ana .	Ku .	Ginâh
Deer .	Keu .	Kouate .		Kuihang .				Chaoua
Dog .								Degui
Duck .								...
Ears .								Aideu
Earth .	Napo .	Gniopipo .	Napo .	Nantsize .	Guioutsoue .	Napo .	Aida .	Ana
Mi .	Mi .	Djipetène .	Memic .	Yonuteiang .	Djipen .	Hami .	Tue .	Sa
Eyes .	Alesi .	Quepo .	Miasieu .	Miaotchidzeu .	Ouecho .	Miasieu .	Mien .	Ne
Father .	Apa .	Ahié .	Aba .	Apo .	Niakan .	Aba .	Apa .	Anpe
Fire .	Ani .	Houi .	Ato .	Mia .	Houé .	Ato .	Mi .	Time
Fish .								...
Foot .								He
God .	Keupou .	Kotopene .	Tchipe .	Kou .	Tchipe .	Kou .	...	Lha
Gold .	Fou .	Oue .	Kouni .	Nono .	Kouni .	Poula .		Ser
Gun .	Chi .	Tchi .	Cheu .	Tchi .	Chi .	Ha .		...
Hand .								Ome
Honey .	Lapou .	Suipa .	Lepe .	Lopo .	Chichio .	Lepe .	La .	
Horse .					(2 hands)			...
Hot .	Mou .							...
House .	Ho .	Mete .	Am .	Miangko .	Mate .	Aman .	Joa .	Ta
Iron .	Ié .	Houe .	Tsa .	Tceu .	Ni .	Tsa .	Tceu .	Len
Knife .	Chou .	Hoke .	Ieule .	Ieule .	Hoka .	Hi .	Dji .	Kim
Lance .	Atho .	Te .	Dime .	Ho .	Tchi .	Hou .	Chou .	Chiam
Left .		Itazeu .	Ata .	Mianka .	Itié .	Ata .	Jeute .	Chemkieng
Man .	Lamé .							...
Month .	Hoka .							Agneu
Moon .								Atsang
Mother .	Haja .	Tiépo .	Lalle .	Loio .	Nechoua .		Ouata .	Sla
Mountain .	Amé .	Tseuni (Pé)	Tsouboum .	Ozo (ia) .	Tsouza .		Zoutchou .	...
Mouth .	Hopu .							Hémé
Mule .	Moko .							Ama
Night .								Amé
								Meti
								Neugo
								...
								Nadeng
								Moukou
								Sinkoua

APPENDIX B

Nose Numerals	Nako	Bihé (téné)	Nakou	Nahin	Tsokote	Nakou	Nima	Sina
	1 Tima ¹	Ji	Te	Teia ²	Ko	Tié	De (kou)	Kigue
2 Nima	Ko	Gni	Gni	Néia	Ko	Gni	Ni (kou)	Agni
3 Sele	Sa	Sin	Sin	Sinia	Sa	Sao	Lou (kou)	Ason
4 Ole	Chi	Li	Li	Sia	Si	Abil	Ngoa (kou)	Pinga
5 Nama	Ou	Ouan	Ouan	Ngouia	Ouan	Tchou	Tchoa (kou)	Kron
6 Koma	Fo	Tcho	Tcho	Kaia	Chi	Chi	Sin (kou)	Chegni
7 Cheuma	Tchi	Cheu	Cheu	Néa	Pia	He	Hou (kou)	Chiot
8 Chima	Pia	He	He	Iaia	Tiou	Kou	Ngou (kou)	Dgou
9 Kôma	Tiou	Koua	Koua	Kouia	Tcheu	Tceu	Tse (kou)	Titsel
10 Titsiti (ma)	Tseu	Tseu	Tseu	Tseia	...	...	Tsede (kou)	Titselkigue
11 Tsetsi	...	...	...	...	...	...	...	Tsitselgni
12 ...	...	...	...	...	...	...	...	Agnitel
20 Nitisi	...	...	...	...	...	...	...	Kichia
100 Tiha	ipe	ipe	ipe	Netscia	...	...	...	Agnimchia
200 Tibin	...	...	...	Peia	...	...	...	Titselselchia
1,000 ...	...	...	...	...	...	...	...	...
10,000 Logni	...	Yote	...	Petchic	...	...	...	Noua
Ox.	La	Dateau	...	...	...	...	...	Ziegue
Panther	...	...	...	Nouko	...	...	...	Sembia
Pig	...	...	...	Ouamo	...	...	...	...
Pipe	...	...	...	...	...	...	...	Oua
Pork	...	Ave	...	Yongiou	...	...	...	Namza (the
Rain	...	Meha	Vochigo	Pe	...	...	...	sky flows)
Red	Ogni	Hoang	...	...	...	...	...	P'sopse
Rice	Tegueu	Me	...	...	...	...	...	Ambou
Right	Lana	Pipo	...	...	...	...	...	Abrang
River	...	Koukon	...	...	...	...	...	Long
Road	Ngueu	To	...	...	...	...	...	Joukou
Salt	Iako	Pi	...	...	...	...	...	T'sai
Sheep	Alai	Ahiogni	...	...	...	...	...	Ion
Silver	Atchi	Gni	...	...	...	...	...	Hun
Sky	Pou	Chitsen	...	...	...	...	...	Men
+								

¹ "ma" is probably a suffix.
² Pronounced almost "va,"

³ "ia" is probably a suffix.
⁴ "hong" guttural.

FROM TONKIN TO INDIA

	¹⁷ LOKAI.	¹⁸ MINCHIA.	¹⁹ LISSOU.	²⁰ TONO.	²¹ PETSEN or HAN LAMA.	²² PE LISSOU.	²³ MOSSO.	²⁴ LOUTSE.
Snow	...	...	...	...	...	...	...	Toane
Soul	...	...	...	...	Toukoué	...	...	Kourou
Stone	Hapu	Tsokouï	Motsou	Ialé	...	Adzou	...	Loung
Summer	...	...	Moutsâ	...	Nipe	...	...	...
Sun	...	Nipé	Moutsâ	Moulé	...	Moutsa	...	Namlong
Table	Mouni	...	...	...	...	...	...	...
Tiger	...	...	Laotou	Lama	...	...	...	...
Tobacco	Sou	...	Ien	Mopon	Longko	...	...	Not
Tomb	...	...	...	...	Mifo	Ien (koua)	Iano	...
Water	Ika	Su	Iguia	...	...	Sui	...	Djié
White	Pou	Peu	Pou	...	Guei	Adia	...	Tai
Winter	...	...	...	...	Pou	Pou	...	Nsan
Woman	Zami	...	Nioanicé	...	...	...	...	Hong
Wood	Iai	Dzeu	Zamo	Soumia	Niouhoumo	...	...	...
Year	...	...	Siko	Teang	Djeu	Zameu	Mitchou	Poumara
Yellow	Gnita	...	...	...	...	Sidzeu	Seu	Chigne
I	Nga	...	Ngoa	...	...	...	...	Augni
Thou	No	Ngo	Nou	...	...	...	...	...
He, She, It	Pa	No	Iaoua	Ngio	Ngo	...	...	Ago
We	...	Po	...	Ngupié	Ngi	...	...	Na
You	...	...	...	...	Atanié	A	...	Aug
They	...	...	...	...	...	...	...	...

APPENDIX B

	25 THIBETAN.	26 LOUTSE.	27 KIOUTSE.	28 MISUMI.	29 KROUTSE.	30 SINGPHO.
Black.	Nana	Na	Na (kissé)	...	...	...
Blue.	Ngongngong	Gongchi	Iosélio	...	...	...
Boat.	Oua	...	Gongchi	...	...	...
Buffalo.	Kioulong	...	...	...	...	...
Caravan.	...	...	...	...	...	...
Chicken.	Chu	Kakha	...	...	Oou	...
Chief (title)	Peumbo	...	Kang	Kha		
Child.	Raro-pou (son)	Zene	{Bessé	...		
Cold.	Tchrangmo	Daung	{Mokoua	...		
Copper.	Ra	Ra	Nago	...		
Cotton.	...	...	Tit	...		
Cup.	Poumo	...	Song	Adeng		
Daughter.	Guimma	...	...	...
Day.	Chaoua	...	...	...
Deer.	Tse	...	...	...
Dog.	...	...	...	...
Duck.	Nakio	...	...	...
Ears.	Mé	...	Ama	Agni	Koui	...
Earth.	Migue	...	Sa	...	Ana	...
Eyes.	Apa	...	Nic	...	Reka	...
Father.	Me	...	Apé	...	Ne	...
Fire.	Lombt	...	Tamé	...	Nia	...
Fish.	Hai	...	(C)hi	...	Mi	...
Foot.	Namlakubo	...	Pla	...	Tsami	...
God.	Ser	...	Ser	...	Chi	...
Gold.	...	...	Oull	...	Legou	...
Gun.	Lapa	...	...	Jaouk	...	...
Hand.	...	...	...	...	Oueul	...
Honey.	Ta	...	...	...	...	...
Horse.	Tsamo	...	Maguen	...	Neta	...
Hot.	Kamba	...	Augueal	...	Pelong	...
House.	Kia	...	Kiom	...	Ta	...
Iron.	Tchrekiong	...	Chiam	...	Chi	...
Knife.	...	...	Chiam	Taksoun		

FROM TONKIN TO INDIA

	25 THIBETAN.	26 LOUTSE.	27 KIOUTSE.	28 MISHMI.	29 KIOUTSE.	30 SINGPHO.
Lance	...	Jela	...	Koouai	...	Lepai
Left	...	Mi	Agoui	...	...	...
Man	...	Daoua	Laulatchai	...	...	...
Month	...	Daoua	...	...	...	...
Moon	...	Sola	Tsala	...	Tchla	Cheta
Mother	...	Ané	Amai	...	...	...
Mountain	...	Iaka	Laka	...	Tchikoug	Poun
Mouth	...	Neugo	Nevi	...	Nigou	Nkoup
Mule	...	...	...	...	...	...
Night	...	Nadung	Agueni	...	...	...
Nose	...	Sena	Sena	...	Chena	Nadi
Numerals	1	Kigue	Ti	Gmo	Ti(lung) ¹	Ay
	2	Gui	Gui	Keninc	Ni(lung)	Kong
	3	Som	Seum	Kesam	Achem(lung)	Mecheum
	4	Je	Bli	Kambune	Adzi(lung)	Mali
	5	Nga	Danga	Kalène	Pauga(lung)	Manga
	6	Tchiton	Kcou	Kerame	Terou(lung)	Kou
	7	Dun	Segni	Nouane	Chingue(lung)	Sinit
	8	Guie	Chiet	Gume	Achiat	Matsat
	9	Gou	Daguen	Lare	Tegucu	Tsikou
	10	Kiou	Tiertsel	Tiap	Tise	Chi
	11	Kionkigue	...	Gmoko	Tiseti(lung)	Chiay
	12	Kiougny	...	...	...	...
	20	Guichou	...	Agnitsel	Anisé	Khoun
	100	Guia	...	...	...	...
	200	Guiguia	...	...	...	...
	1,000	Tondihrkigue	...	...	...	...
Ox	10,000	Tretso	...	...	...	...
Panther	...	Noua	...	...	...	...
Pig	...	...	...	...	...	...
Pipe	...	...	...	...	...	...
Pork	...	...	...	...	Oua	Oua
Rain	...	...	...	...	...	...
					L	Namsa
						Kierba

APPENDIX B

Red.	Memer	Psai	Maningchi	Ha	Amsiet	Ngou
Rice.	Dre	Ambeu	Antché	Keyene	Abankó	Léka
Right	Dela	Abeung	Abœun	...	...	...
River	Longkiou	...	Otando	...	...	...
Road	Lam	Molon	Tara	...	...	Tchioun
Salt.	Tsa	...	Sala	...	...	...
Sheep	Lon	Yang	Achit	...	...	...
Silver	Nguen	Ngoui	Ngoni	...	...	...
Sky.	Nam	Nam	Gameun	...	...	Mo
Snow	Kaoua	Touane	...	...	...	...
Soul.	Kourou	...	...	...	...	...
Stone	Do	Loung	Loung	Laong	Long	Nonng
Summer	...	...	...	...	...	Tchian
Sun.	Grima	Maou	Nam	...	Kounip	...
Table	...	...	...	...	...	...
Tiger	Tea	...	Neut	...	...	Loudi
Tobacco	Tomb	Not	...	...	...	...
Water	Kiou	...	Nang	Tambiâ	Tchi	...
White	Keker	...	Hong	...	...	Ka
Winter	...	...	...	...	...	...
Woman	Namo	...	Poumara	...	Tsamari	...
Wood	Chigne	Chiong	Ching	Tsal	Chum	...
Year	Lo	...	...	...	...	...
Yellow	...	...	...	...	...	...
I.	Ngo	...	...	...	...	...
Thou	Kieu	...	...	...	...	...
He, She, It	Korong	...	...	...	...	...
We.	...	...	...	...	...	...
You.	...	...	...	...	...	...
They	...	...	...	...	...	...

FROM TONKIN TO INDIA

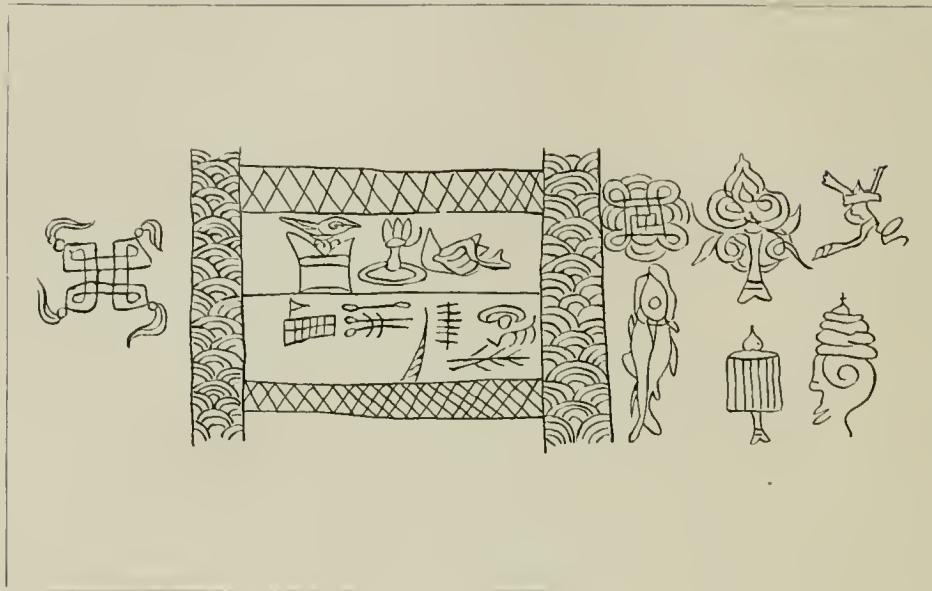
COMPLEMENT TO NO. 24—LOUTSE VOCABULARY—furnished by
FATHER DUBERNARD at Tsekou

- Civil chief : *Pone.*
 : *Ankang.*
 He is a great chief : *Ankang katen re.*
 (chief) (great) (he is).
 Blind : *ne me yang.*
 (eye) (not) (sees).
 Deaf : *aua me tong.*
 (ear) (not) (hears).
 You must comb yourself : *Ouné sé gone.*
 (hair) (to comb) (must).
 There are four chickens : *Kakie bligou al.*
 (chickens) (four) (there are).
 How many children have you ? *Na antienne dangyo al.*
 (To you) (children) (how many) (there are).
 I have five : *Pnga you al.*
 How many daughters have you ? *Poumatienza dangyo al.*
 (Daughters) (how many) (there are).
Poumatienza agni yo, lankiera assom yo.
 (Girls) (two) (I have), (boys) (three) (I have).
 How old is the eldest ? *Temeyo dongnin kia.*
 (The biggest) (what age) (has).
 He is 20 : *Agnitsei gnuin kia.*
 (20) (years) (has).
 How old is the youngest ? *Kienemiyo dongnin kia.*
 (The smallest) (what age) (has).
 He is at the breast : *Kiou uga.*
 (breast) (drinks).
 I want to drink some water : *Ngang nga gal.*
 (water) (to drink) (wish).
 I wish to eat some mutton : *Ayan cha ke gal.*
 (sheep) (meat) (to eat) (wish).
 I am cold to-day : *Tagnila zing.*
 (to-day) (cold).
 It will rain : *Nam za boa*
 (sky) (rain) (will fall).
 We must dress : *Io goua gal.*
 (coat) (to clothe) (must).
 Do you know how to draw the cross-bow ? *Tana ab ne soa.*
 (cross-bow) (to draw) (do you know).
 Is there much water in (the) Bayul ? *Tourong meli ngang kateng la.*
 (Bayul) (country) (water) (big) (has it).
 Maize : *tambo.*
 Corn : *azong.*
 Ripe buckwheat : *amblé.*
 Unripe „ : *poa.*
 Barley : *soa.*
 Antelope : *adzou.*
 Musk deer : *kiela.*

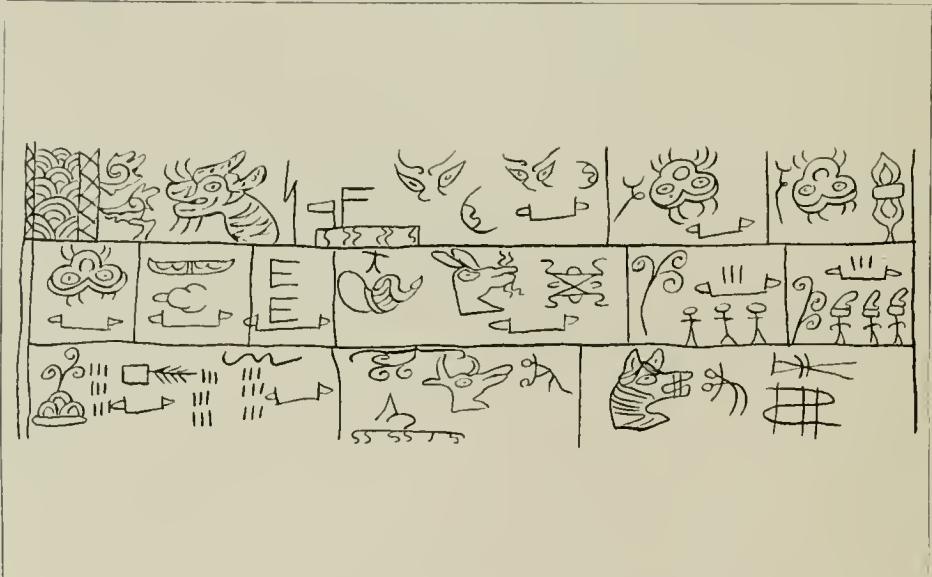
[MOSO MANUSCRIPTS.

FROM TONKIN TO INDIA

TITLE



FIRST PAGE



MOSO MANUSCRIPT NO. I.
(Reduced to $\frac{2}{3}$ size.)

APPENDIX B

TITLE

On the cover | date of the book, day, month, | religious ornaments.

FIRST PAGE

Name of the book | *doni ma do tu*: to see one is not able (in the beginning was chaos) | *ma to*: one is powerless | *dapatu*: after to see (light was created).

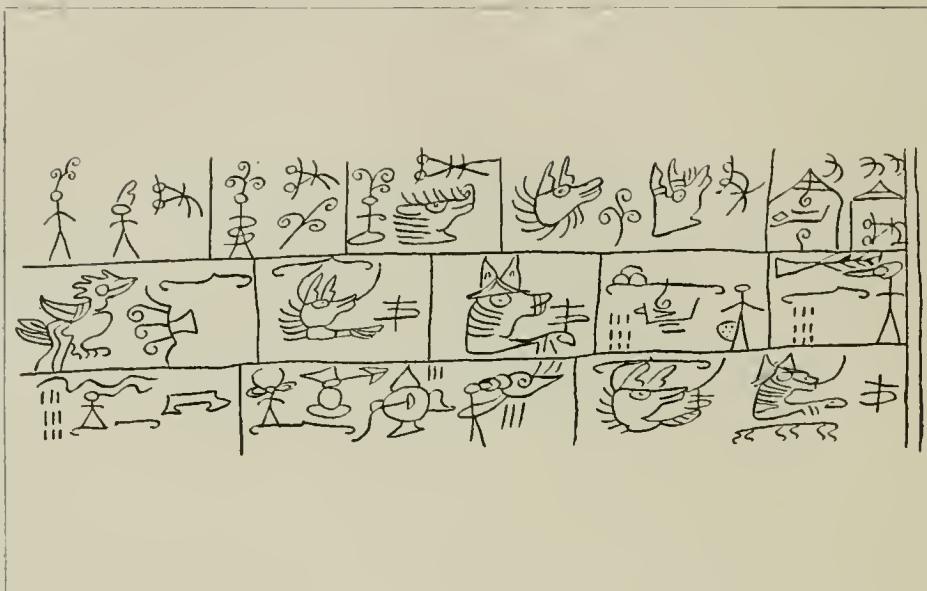
Tapa: the wizard | *regatu*: to say | *régué*: all plants | *sassatu*: were formed | *djouso soukotu*: three men come-forth from the ground | *djouni soukotu*: three women come-forth from the ground.

Djoulong gouloutu—jousin gouloutu—joupou gouloutu: first a stone—then a tree—a road | *Moudju lignanti*: men and animals are in being | *jadjo kagné ti*: the horse stays in the house, a foal is born.

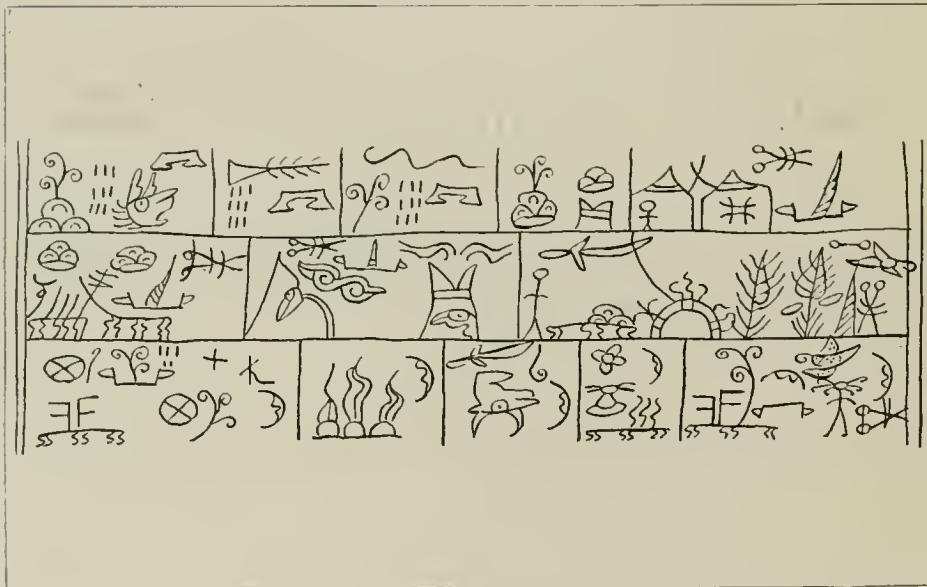
KEY TO MOSSO MANUSCRIPT NO. I.
(With Oral Text.)

FROM TONKIN TO INDIA

SECOND PAGE



THIRD PAGE



MOSO MANUSCRIPT NO. I.
(Reduced to $\frac{2}{3}$ size.)

APPENDIX B

SECOND PAGE

Zodjo mignienti: the man and the woman are joined | *Kodjo djeugnienti*: a numerous family comes | *sudjou pougnienti*: the whole family | *Kudjou lignienti*: to a dog which goes into the mountain with its female | *pondjoun déniati*: the village next is made.

Tchéton a nétoé: heaven gives food to the fowls | *mounu djou kuku*: heaven gives food to the animals | *diné djoujou li djouja papali*: heaven gives food to the horses | *djoulou goulandjo*: heaven has made nine stones | *djousé goundja djo*: heaven has made nine woods.

Djoumba goukudjo: heaven has made nine roads | *tzouzaliguéso—mésakapu gouloundu—takasoulané—bakasoujamo*: the man is—the priest is—he strikes the cymbals—and makes music | *djoukalapati*: heaven has made the hands of the man white | *Djouji konapatu*: heaven has made the feet of the horses white.

THIRD PAGE

Djouloungoulotu guénélékutu: nine stones fall from heaven | *djousu koun-tadrou*: nine trees, from heaven | *djoupa goukundjou*: heaven has made thread (clothing) | *djouloujouloung djou*: heaven has sent an evil stone (men were disobedient to their chief) | *ni pengni bendjala*: of two villages, one man kills the other.

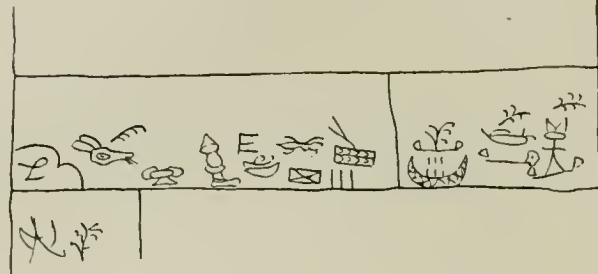
Ndaka leumédja: two villages desire war | *tiona aouaja*: heaven sends the wind and the scourges (rain, hail) | *Kutchuchutchendja*: a man must not covet another's pasture | *chioutudzetudja*: a man must not covet another's harvest.

Tzejoularadu tenguidzéjoutu tsignidendjuchamari: one cannot count in ten days the number of murderers and robbers | *moutsulalimangué*: funeral rites are always to be observed (many are the dead) | *Koutuluchamapou*: the blood of animals (sacrificed for the dead) ever flows | *Zélémoudjutu zamahéu*: the blood is like the grass | *dzouzar matumé ndzeumo madju*: if it were not for robbery and murder the chiefs would have no subsistence.

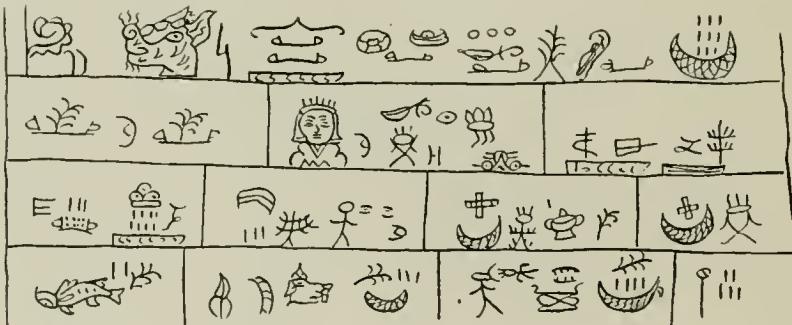
KEY TO MOSSO MANUSCRIPT NO. 1.
(With Oral Text.)

FROM TONKIN TO INDIA

TITLE



FIRST PAGE



MOSO MANUSCRIPT NO. 2. FROM TSEKOU.

(Reduced to $\frac{2}{3}$ size.)

APPENDIX B

TITLE

Cover. Title.

Year of the hare; second moon; the third. | Amazon.—Signature of the wizards.

FIRST PAGE

Of old neither sky nor earth (chaos). | In the beginning the sky and the earth were made; the sun, the moon, three stars, trees, water, three stones.—All nature was composed of thirteen things.

(Then were made) things hurtful to man—the dragon of earth, the genius of the rocks, the attack of mysterious force | (Was made) the wizard who (to guard mankind from bane) teaches eighty writings | A spirit without blemish wards off that which can harm.

That he may not destroy—gold, silver, the turquoise are offered to this spirit | Three gifts having been made to heaven, mankind, herds, and crops will flourish | (Sign that there shall be no more ills.) The earth regards the sign (placed above), all will prosper. | If this sign is disregarded there will come 113 terrible calamities.

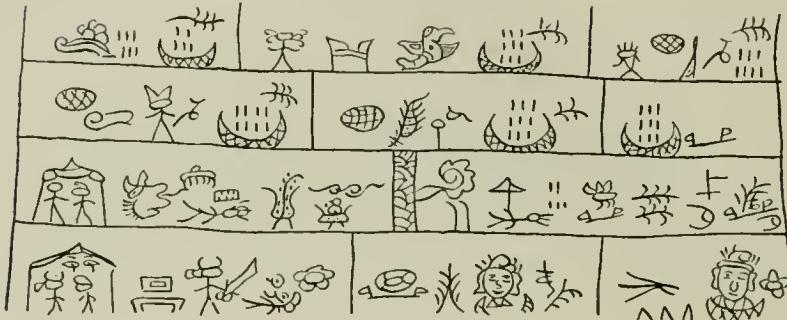
Man will be caught by these calamities, like the fish by the hook | Ye will be treated like the grass, the tree, the stone, which are cast into the fire. | If ye turn again, on the earth will be seven mountains which shall provide all that ye desire | These seven hills.

KEY TO MOSSO MANUSCRIPT NO. 2.

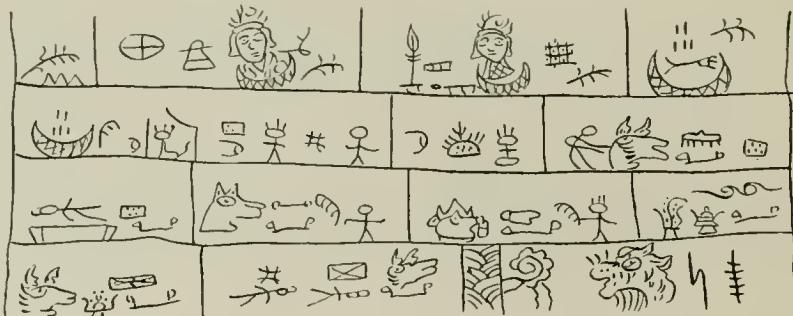
(The literal translation of these pages is given for the first time.)

FROM TONKIN TO INDIA

SECOND PAGE



THIRD PAGE



MOSO MANUSCRIPT NO. 2. FROM TSEKOU.

(Reduced to $\frac{2}{3}$ size.)

APPENDIX B

SECOND PAGE

Will grant a happy cycle of sixty years | The trees have (then) fine leaf ;—the branches, fruit ;—the birds, abundant food.—The earth produces crops. | In gratitude for all these benefits—man offers gold, silver, turquoise, coral, ivory, seven kinds of gifts.

These presents made, it needs to continue in well-doing to have the same plenty | These presents made, the trees, the crops, the fruits of the earth will still thrive | prosperity will endure yet other ninety years stable (as a rock).

(Invocation) May man, like a god in the temple, suffer neither sickness, nor cold, nor heat. | Chapter II. | Half mankind has obeyed—half has become stiff-necked, seven arrows have overtaken man. The king of the Tompas (wizards) in wrath having taken back all manner of writings.

Withdraws into the temple—meditates on his writings.—Having read them, he comes forth in fury with a sword, to take vengeance on the disobedient | the belly is starved—the crops are sterile.—Man, chastised, becomes sorrowful ; he has white thoughts (repents). | The punishment ceases.—Man is happy.—Gold returns.

THIRD PAGE

The turquoise returns | The moon is unclouded—The stars rise—Man is joyful. | In his joy he plants a lhader (prayer banner)—He offers all kinds of turquoises. | (Invocation) In the world may the sick man be healed in five days.

If in five days he is not healed | The Tompa in anger | having taken again all manner of books | The Tompa, like a ravening (that eats flesh) tiger—comes to destroy the devil which departs not.

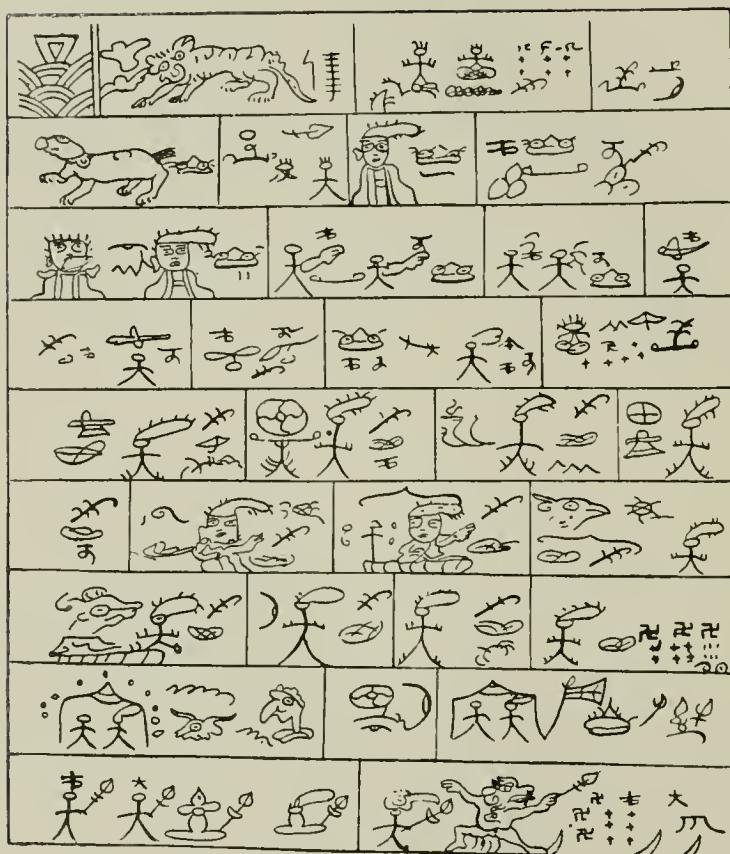
May the sick be healed | May the horse feed well—May the crops yield grain, may the sick not suffer from heat, nor from cold—and may he be in good health | If henceforth righteous aims are pursued.

A good horse, garments of silk, treasures | all these gifts are carried to the temple by the sick, in token of gratitude. | Chapter III. | The planet not being obeyed.

KEY TO MOSSO MANUSCRIPT NO. 2.

(The literal translation of these pages is given for the first time.)

FROM TONKIN TO INDIA



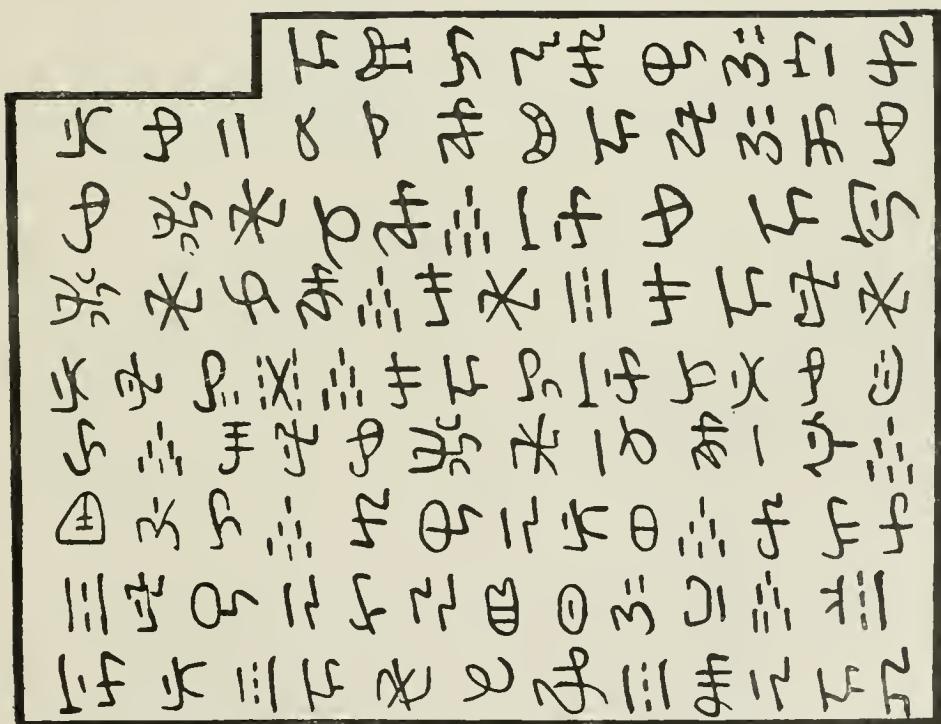
Fragment of a Mosso Manuscript.

APPENDIX B

One	𠂇	Horse	𠂇
Two	𠂆	Ox	𢤑
Three	𠂅	Sheep	𢤔
Four	𠂈	Fowl	𠂉
Five	𠂊	Dog	- -
Six	𠂋	Pig	𢤓
Seven	𠂌	Water	𢤒
Eight	𠂍	Fire	𠂎
Nine	𠂏	Red	𠂉
Ten	𠂐	A.	𢤑
		Tchou	𠂇

Lolo Signs with their Meanings.

Specimen of Lolo Manuscript.
Engravings copied from "La Frontière Sino-Ammarîe," by G. Deveria (Ernest Leroux, Publisher).



FROM TONKIN TO INDIA

III MATERIAL FOR THE EXPEDITION

The valises we used were those known as Pavie valises, capable of being borne on a man's shoulders. For travel in Yünnan alone somewhat larger ones could be taken, but they would have to be very strong on account of the frequent falls among the mules. One mule might load 154 lbs. (adp.); but for a long march 132 lbs. is enough. The maximum weight of each valise when full ought not to exceed 66 lbs. In the list of items clothing is left out, and money, which has all to be carried with one, and is very heavy, is likewise not mentioned. It must be remembered that the supplies here catalogued were calculated for a year's requirements.

CAMP

1 large double-covered patrol tent for three persons, about 21 sq. ft.	1 pickaxe.
1 small do. for two (same shape).	Nails and screws.
Tent pegs for same, and reserve.	1 saw.
3 camp beds. ¹	2 hatchets.
3 sheepskin beds.	2 kettles.
Cord and packthread, 2 lots.	Letters to mark the cases.
3 canvas buckets.	3 lbs. of wire.
2 basins.	2 dessert knives.

PROVISIONS

40 packets tobacco.	2 boxes tinned soup.
22 boxes crushed sugar.	2 " cutlets.
44 packets candles. ²	4 " potted meat.
9 lbs. ground coffee.	5 " sardines.
18 small boxes onion soup.	6 " filleted herrings.
6 tablets chocolate.	4 " mackerel.
4 boxes condensed milk.	1 bottle rum.
4 pots Liebig.	1 " brandy.
4 " cheese.	

ARMS AND AMMUNITION

3 guns, calibre 12.	400 wads and caps.														
2 Winchesters.	4000 rounds for calibre 38.														
1 Express Bland 303.	400 " for Winchester.														
1 Express 577.	430 " for Express 303.														
2 guns, calibre 38 (for small birds). ³	100 " for Express 577.														
2 revolvers (Lebel).	375 " for Lebel revolver.														
1 revolver (Smith and Weston).	300 " for Smith and Weston revolver.														
2 fishing tins, with hooks and lines.	Shot—2 sacks 0; 2 sacks 2; 3 sacks 12.														
Bottles of anti-rust and vaseline.	Powder, 11 lbs.														
Cartridge cases, containing—	70 Favié cartridges (for exploding in rivers, etc.).														
Made cartridges, calibre 12.	<table border="0" style="margin-left: 20px;"> <tr> <td>194 shot.</td> <td></td> </tr> <tr> <td>450 0</td> <td></td> </tr> <tr> <td>174 2</td> <td></td> </tr> <tr> <td>200 5</td> <td></td> </tr> <tr> <td>200 6</td> <td></td> </tr> <tr> <td>230 8</td> <td></td> </tr> <tr> <td>380 12</td> <td></td> </tr> </table>	194 shot.		450 0		174 2		200 5		200 6		230 8		380 12	
194 shot.															
450 0															
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200 6															
230 8															
380 12															

¹ My companions soon followed my example, and slept on a mat and waterproof sheet on the ground.

² We were able to economise these for several months by using small Chinese oil-lamps.

³ Most useful for ornithological collections.

APPENDIX B

NATURAL HISTORY

8 jars, different sizes, hermetical.	Labels, 3 dissecting cases, scissors, wadding, strychnine.* Snares.
Alum, acetate of soda, arsenical soap.	
Sawdust.	
Herbal paper.	

PHOTOGRAPHY¹

1 Haneau Richard apparatus with roll or box plates, 9 x 12 centim. (corresponding to English $\frac{1}{4}$ plate).	About 80 dozen plates for small camera.
1 do. Ledocte, 9 x 12.	About 15 rolls 9 x 12.
1 camera, 4 $\frac{1}{2}$ x 6.	Clothes, black paper, spare frames, black bags.
60 dozen plates, 9 x 12 celluloid.	2 bags for changing plates.
28 " 9 x 12 glass.	1 red lamp.

INSTRUMENTS, WRITING MATERIALS, ETC.

M. Roux's instruments (theodolite, sextant and artificial horizon, astronomical telescope, hypsometers).	20 notebooks, 4 dozen pencils, calculating sheets, etc.
1 clinometer, 2 telescopes.	White paper, ink in powder.
1 mètre, 1 décamètre.	2 portfolios, 1 compass box.
3 thermometers.	2 smoked glasses.
5 aneroid barometers.	Flints, wicks, pipes.
	Chinese visiting cards.

DRUGS²

2 small medicine chests.	bottles phenicated water, 2 pots boric acid, taspas, sublimate).
1 do. reserve (4 boxes kola, 2 boxes salol, 4 boxes antipyrine, 4 pots quinine, 2	1 spray.

BOOKS

- 1 case of books and maps concerning region of expedition.

PRESENTS³

Large chromolithographs, small images.	30 scent bottles.
1 pendulum clock.	5 dozen spyglasses.
3 revolvers.	5 dozen cigarette holders.
Pipes.	6 looking-glasses with three sides.
Flints.	384 small cases of needles.
18 boxes with glasses.	60 scissors.
20 circular boxes (metal).	2 leather purses.
A score of pocket glasses.	4 small panoramas.

¹ The experience of three expeditions has shown me that reliance cannot be placed on rolled films. After having used apparatus 18 x 24 centim., 13 x 18, 9 x 12, I ended by only employing one of 6 $\frac{1}{2}$ x 9, the results from which can in most cases be enlarged.

² I strongly recommend the use of kola as an excellent sustainer and restorative. After trying it our porters had great faith in it. Boric acid is also most valuable; wounds and sore eyes being frequent, it was useful among the natives.

³ Among the presents the most popular were those which had anything to do with tobacco; one could hardly take too many pipes and flints. Next to them came knives, scissors, spyglasses, needles, looking-glasses, and musical boxes. The scents, panoramas, microscopes, jewellery and trinkets, and things in general which had not a direct practical use, were less successful. In the Mekong valley and Bayul a good reception was given to linen and Chinese yarn, especially when in dark blue.

FROM TONKIN TO INDIA

PRESENTS—*continued*

12 kitchen knives.	1 watch in case.
24 small microscopes.	1 inkstand.
1 silk handkerchief.	5 scarf pins.
36 penknives.	20 boxes bonbons.
24 knives.	15 musical boxes.
2 pipes in shape of a revolver.	Trinkets in duplicate.
52 bone boxes.	1 silver mug.
4 cotton kerchiefs.	23 toilet requisites.
Pins.	3 writing requisites.
2 field glasses.	1 aristonette.
1 hunting knife.	4 watches.
12 celluloid glasses.	18 wooden boxes.
9 magie mirrors.	12 harmonicas.
1 cup and saucer (silver).	1 large musical box.
1 ,, ,, (nickel).	6 gilt brooches.

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